World
e-Parliament
Report 2024

Cover picture: A console operator oversees a session of the Senate of Canada.
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Contents

Foreword

The digital age continues to reshape our world at an unprecedented pace, and parliaments are no exception to this rule. Parliaments must adapt to meet the changing expectations of citizens and the demands of modern governance. Digital transformation has a critical role in this process.

Since its launch in 2008, the World e-Parliament Report series has provided a comprehensive global assessment of digital technologies in parliaments, making it a unique and valuable resource. This edition captures the current state of digital adoption and introduces the Digital Maturity Index, a pioneering tool to help parliaments assess their own progress.

The report reveals both encouraging advancements and persistent challenges in the digital landscape of parliaments. From the rise of artificial intelligence and cloud computing to the ubiquity of social media, parliaments are embracing new technologies and displaying the strong leadership needed to harness them. However, the digital divide between parliaments in high-income and low-income countries persists, underscoring the need for continued collaboration and knowledge-sharing. This report reinforces the Inter-Parliamentary Union's Centre for Innovation in Parliament as a valued catalyst for modernization, allowing parliaments to connect and share good practice.

The journey of digital transformation is ongoing. Its success will depend on our collective commitment to innovation, collaboration and democratic values. Let this report inspire and guide us as we work towards more responsive, efficient and inclusive parliaments in the digital age.

Martin Chungong
Secretary General
Inter-Parliamentary Union

Acknowledgements

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Executive summary

The *World e-Parliament Report 2024* provides a comprehensive assessment of the use of digital technology in parliaments worldwide. It is based on survey responses from 115 parliaments or chambers in 86 countries and supranational parliaments.

The report identifies a growing strategic focus on digital transformation, with 68% of parliaments reporting having a multi-year digital strategy in place. Artificial intelligence (AI) and cloud computing show significant increases in use. Cybersecurity is a top priority and social media has become nearly ubiquitous.

This edition introduces the Digital Maturity Index, a new benchmarking tool that ranks parliaments across six key areas. The Index highlights a persistent digital divide, with country income level emerging as the most significant predictor of digital maturity. This finding highlights the need for targeted support for parliaments in lower-income countries, as well as for continued inter-parliamentary collaboration and knowledge-sharing.

The findings of this report are as follows:

1. **Digital transformation in parliaments is accelerating**, driven by comprehensive strategies and high-level leadership.

    a. Over two thirds of parliaments (68%) now have multi-year digital strategies and 73% have formal modernization programmes. Secretaries general of parliaments are taking a more active role in ICT governance, rising from 51% in 2020 to 69% in 2024.

    b. Parliaments are allocating more of their budgetary resources to ICT, with 20% now spending over 10% of their overall budget on digital technologies, up from 15% in 2020. However, insufficient funding (59%) and a lack of experienced staff (48%) remain significant barriers to digital transformation.

    c. Infrastructure and user support are the strongest areas of digital maturity, while public engagement emerges as a weak spot. Digital governance, strategy and management are also weaker areas for many parliaments.

    d. Parliaments with strong data management practices and well-defined approaches to digital transformation will find it easiest to implement AI.

2. **Country income level is the most significant predictor of digital maturity.**

   a. A digital divide exists among parliaments worldwide. Parliaments in high-income countries are more likely to rank highly in terms of digital maturity. In contrast, the picture is markedly different for parliaments in less affluent countries: about two thirds of parliaments in low-income countries and half of those in lower-middle-income counties fall into the category of least digitally mature. This disparity highlights a significant gap in technology adoption and implementation between parliaments in countries at different income levels.

   b. Parliaments with a strong strategic focus on digital transformation rank more highly in terms of their digital maturity.

3. **Cloud computing and AI are gaining traction in parliaments**, leading to a stronger focus on cybersecurity.

   a. Twenty-nine per cent of survey respondents reported that AI was becoming more widely adopted in their parliament, with this technology being used for transcription, translation and cybersecurity. However, only 11% of parliaments are bound by laws regarding the use of AI and just 14% have internal procedures or regulations on this subject.

   b. Cloud adoption is increasing, with 68% of parliaments now using cloud services in some capacity. However, many still prefer on-premises hosting for critical applications like databases, content management and document management.

   c. Cybersecurity is a top priority, with 70% of parliaments having adopted national cybersecurity standards and 53% having internal cybersecurity strategies. In the past two years, 79% of parliaments have provided cybersecurity training to staff and 63% to MPs.

4. **Parliaments face challenges in digital transformation**, particularly in low-income and lower-middle-income countries.

   a. Legislatures in Europe and the Americas lead the way on digital maturity, while those in the Pacific region and sub-Saharan Africa are struggling to keep pace.

   b. Public engagement remains a challenge, with only 35% of parliaments having a formal strategy for online public participation. Barriers identified include citizens lacking skills to use digital tools (42%) and limited internet access (41%).

5. **Inter-parliamentary collaboration is valued** for knowledge-sharing and capacity-building.

   a. The share of parliaments participating in the IPU's Centre for Innovation in Parliament (CIP) has increased from 27% in 2020 to 45% in 2024. Larger parliaments and those in high-income countries are more active in providing support to others, while smaller legislatures and those in lower-income countries express a willingness to provide support in the future.

   b. Seventy per cent of parliaments surveyed said they were willing to provide support to others, although only 46% currently do so.

Based on these findings, the report makes the following recommendations for parliaments:

1. **Develop clear visions and comprehensive digital strategies** aligned with parliament's overall strategic objectives, and ensure strong political and administrative leadership to drive digital transformation.

   a. Create a dedicated digital transformation working group or committee involving key stakeholders.

   b. Develop a multi-year digital road map with clear milestones and key performance indicators.

   c. Align digital strategies with broader parliamentary goals and national digital agendas.

   d. Ensure support and active involvement from senior leadership, including Speakers and secretaries general.

e. Regularly review and update strategies to adapt to technological changes and emerging needs.

2. **Allocate adequate financial, human and technological resources** to support digital transformation, considering both short-term and long-term requirements.

   a. Conduct a comprehensive assessment of current and future resource needs.

   b. Establish a dedicated budget for digital transformation initiatives.

   c. Invest in attracting and retaining skilled staff.

   d. Implement agile resource allocation methods to respond to changing priorities.

   e. Develop partnerships with technology providers and academic institutions.

3. **Establish robust governance frameworks** and regulations for emerging technologies like AI to ensure responsible and transparent use while safeguarding democratic values.

   a. Develop clear policies and guidelines for the use of AI and other emerging technologies.

   b. Establish ethical frameworks for data use and algorithm development.

   c. Create oversight mechanisms to monitor the implementation of new technologies.

   d. Ensure compliance with data protection and privacy regulations.

   e. Regularly assess and mitigate potential risks associated with new technologies.

4. **Invest in capacity-building**, providing training and skills development opportunities for members and staff, particularly in cybersecurity, data management and emerging technologies.

   a. Develop comprehensive digital literacy programmes for all members and staff.

   b. Provide specialized training in areas such as cybersecurity, AI and data analytics.

   c. Establish mentorship programmes to facilitate knowledge transfer.

   d. Create a culture of continuous learning and adaptation to technological change.

5. **Prioritize public engagement**, developing formal strategies and leveraging digital tools to involve more citizens in the legislative process and build trust in democratic institutions.

   a. Develop user-friendly online platforms for public consultation and feedback.

   b. Implement social media strategies to enhance communication with citizens.

   c. Create digital tools for tracking and visualizing the legislative process.

   d. Ensure that digital platforms are accessible for all citizens, including those with disabilities.

   e. Use data analytics to gain insights from public engagement and improve decision-making.

6. **Strengthen inter-parliamentary collaboration** and knowledge-sharing to enable parliaments to learn from each other, share good practices and collectively address common challenges in digital transformation.

   a. Actively participate in international parliamentary networks and forums.

   b. Contribute to and use shared resources, such as open-source tools and good practice guides.

   c. Organize regular inter-parliamentary conferences and workshops on digital transformation.

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Introduction

The first World e-Parliament Report was published in 2008 and, barring a brief hiatus in 2014, a new report has been released every two years since. When it was launched, the report was a pioneering attempt to identify and describe parliamentary efforts to utilize ICT. The 2008 edition established an authoritative baseline and, since then, the series has generated a narrative for parliaments around their use of digital tools and technologies. Then, as now, the research was undertaken not just to understand what was happening but to advance the state of knowledge among parliaments and to promote international debate and cooperation. As a result, parliaments can now evaluate their own use of ICT against an international set of data, identifying strengths and opportunities for improvement.

This series has always focused on the relationship between parliaments and ICT but by the fifth edition, published in 2018, it had become clear that the e-Parliament concept was as much about leadership, governance and strategy as it was about technology and communications.

This eighth edition of the World e-Parliament Report follows a special issue in 2022, which focused on the aftermath of the COVID-19 pandemic and its impact on parliamentary technology and modernization. This impact continues to be felt, although by 2024, the situation has become more normalized and innovation has slowed from the extremes of 2020–2021.

For this reason, this edition returns to its traditional broad assessment of parliamentary ICT. It introduces two innovations. The first is a simplified survey that focuses on the core elements of digitalization. The second is the Digital Maturity Index, a new benchmark of parliaments. For the

first time in the series, this report allocates a ranking to each parliament or chamber taking part in the research. This is not a league table, but rather a guide intended to help parliaments understand their own digital maturity in relation to others, to learn from this, and to refine their digital transformation and technology adoption processes.

This report provides a concise overview of how digital transformation benefits parliaments, highlighting 10 key features of a digital parliament and 10 essential characteristics for leading strategic change.

In the section on benchmarking the digital parliament, the report's findings are summarized and its recommendations outlined. This section then discusses the rise of artificial intelligence (AI), particularly generative AI (GenAI), identifies the significant technology trends seen across this report series, and examines the implications of these trends for the leadership and management of ICT. It also identifies emerging technology trends, as well as those trends that have remained consistent and those that the data suggests are declining. This discussion is followed by a presentation of the new Digital Maturity Index.

The final section focuses on the current state of parliamentary technologies and practices. It begins with an overview of the report's key findings. This is then followed by an in-depth discussion of the data based around seven key areas: digital governance, strategy and management; infrastructure; parliamentary systems; supporting users in parliament; digital content and publishing; public engagement; and inter-parliamentary collaboration.

This report is based on a survey of 115 parliaments and chambers from 86 countries, plus two supranational parliaments (the European Parliament and the Pan-African Parliament). Responses were received from 48 unicameral parliaments and 67 bicameral legislatures (30 responses from upper chambers and 37 from lower chambers). The data for the parliamentary survey was collected between October 2023 and January 2024.

How digital transformation supports better parliaments

Synoptic and results panels during a plenary session in the Italian Chamber of Deputies. © Chamber of Deputies of Italy

Since 2008, this report series has emphasized the importance of leadership and knowledge-sharing, and has demonstrated how technological change in parliaments tends to be incremental rather than revolutionary (the COVID-19 pandemic period being a notable exception to this rule). It has shown that modernizing parliaments through new digital technologies is important and has become increasingly commonplace. In 2024, digital tools are critical to the parliamentary mission, driving efficiencies, good practice and accountability. Digital transformation, however, carries risks and complexities that require knowledge, strong leadership and significant planning.

This section draws on evidence from the World e-Parliament Report series, and from the work of the Inter-Parliamentary Union's (IPU) Centre for Innovation in Parliament (CIP), as well as its hubs and network. It summarizes 10 key features of a digital parliament and 10 essential characteristics for leading strategic change. Parliaments wishing to become more effective and more digitally mature in a managed and sustainable way should consider adopting these recommendations.

What is digital transformation?

Digital transformation is a broad, parliament-wide programme that recognizes future business needs and re-maps the technological landscape to support those needs. It is a holistic programme that leverages digital technologies to change how an organization thinks, works and behaves. At the heart of transformation lies the culture of the organization and the cultural beliefs (implicit and explicit) that drive behaviour.

Digital transformation describes a journey of innovation, modernization and renewal. Every parliament starts from a different place, moves forward at its own pace, and travels as far as it feels able. Ambition is to be encouraged, but limitations will always exist owing to perceptions of risk, and to the realities of culture, costs and resourcing.

Figure 1. Areas of impact for a digital transformation programme

CULTURE	PEOPLE	PROCESS	TECHNOLOGY
New ways of working Agility, flexibility, empowerment, user-centred	**Learning and adapting** New skills, more effective, collaborative	**Innovative** Efficiencies, process improvement, streamlining workflows, data-driven, agile	**Modernizing** Replacing legacy systems, better inter-operability, open platforms, cloud-based
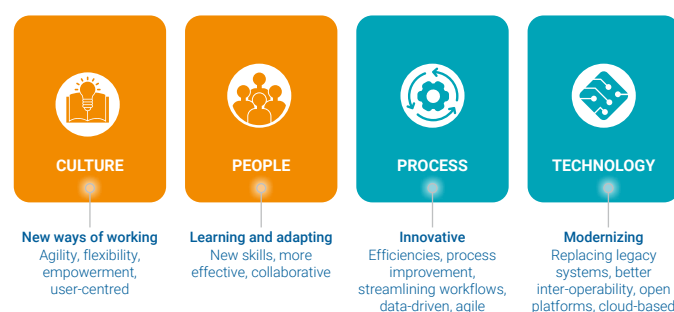
The IPU and Association of Secretaries General of Parliaments (ASGP) publication *Guide to digital transformation in parliaments*[1] identifies the specific benefits of digital transformation to parliaments, including the following:

- Enhanced data management
- Faster decision-making
- Improved productivity
- Improved user experience
- Increased efficiency
- Increased environmental sustainability

Ten key features of a digital parliament

A digital transformation programme can deliver robust digital infrastructure, high-quality data management, strong open data practices, a culture that believes in the proactive adoption of emerging technologies, strong cybersecurity measures, and regular monitoring and evaluation. An effective digital parliament will demonstrate the following:

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1 Inter-Parliamentary Union (IPU) and Association of Secretaries General of Parliaments (ASGP), *Guide to digital transformation in parliaments* (Geneva: IPU/ASGP, 2023): www.ipu.org/resources/publications/reference/2023-09/guide-digital-transformation-in-parliaments.

1. **Vision and strategy:** Parliaments need a clear, well-articulated vision and a comprehensive digital strategy that aligns with their overall strategic objectives.

2. **Leadership and governance:** Strong political and administrative leadership, along with effective governance structures, such as a strategic working group or committee, will help parliaments to drive and oversee the digital transformation process.

3. **Culture and capability:** Parliaments must develop a culture that embraces innovation, collaboration and continuous learning, supported by ongoing skills development for members and staff.

4. **Stakeholder engagement:** Parliaments should actively engage with stakeholders, including MPs, staff and citizens, in order to understand their needs, and involve them in the design and implementation of digital solutions.

5. **Robust digital infrastructure:** Reliable, secure and scalable ICT infrastructure that leverages modern technologies, such as cloud computing, is key to ensuring business continuity while proactively managing risk. This allows for efficient, user-centric digital platforms that seamlessly support core parliamentary functions and enable efficient workflows and collaboration.

6. **Data quality:** Data is at the heart of the digital parliament. Strong data analysis and management techniques are needed to ensure that parliamentary data is high quality, robust, reliable and reusable.

7. **Open data, open parliament:** A commitment to data-driven decision-making and open data practices makes parliamentary information easily accessible and reusable by the public.

8. **Innovation and emerging technologies:** A proactive approach to exploring and adopting new and emerging technologies, such as AI and machine learning, helps to improve parliamentary processes and services.

9. **Cybersecurity and resilience:** Robust cybersecurity measures, regular risk assessments, and resilient infrastructure are needed protect parliamentary data and ensure business continuity.

10. **Monitoring and evaluation:** Regular monitoring and evaluation of digital initiatives allows parliaments to assess their impact, identify areas for improvement, and ensure alignment with the institution's overall digital strategy.

Ten essential characteristics for leading strategic change

Digital transformation requires strong leadership, a compelling vision, high-level commitment and a culture of innovation in order to effectively transform people, processes and culture. In order to effectively lead strategic change, parliaments are advised to adopt the following recommendations:

1. **Create a compelling vision:** Develop a clear and inspiring vision for the digital parliament that communicates the benefits and aligns with the institution's strategic goals.

2. **Ensure high-level commitment:** Engage with all internal stakeholders, including political leadership, in order to build understanding and ownership of, and commitment to, the digital transformation agenda. Consider establishing a high-level working group.

3. **Appoint a digital transformation leader:** Identify a senior leader with the necessary skills, authority and resources to drive the digital transformation process.

4. **Foster a culture of innovation:** Cultivate a culture within parliament that encourages experimentation, learning from failure, and continuous improvement. Ensure that parliament provides the necessary support and incentives to enable innovation at all levels of the institution.

5. **Invest in people:** Prioritize ongoing training and skills development for members and staff to build capability. Here, the focus should be on digital literacy, data analytics, cybersecurity, and other critical and emerging competencies that will allow parliament to modernize and mature. Parliament must also recognize that staff recruitment and retention can be challenging when private-sector organizations can offer higher salary packages.

6. **Adopt user-centric design:** Place the needs and experiences of MPs, staff and citizens at the centre of digital solution design and implementation, regularly seeking their input and ensuring timely and meaningful feedback.

7. **Implement agile and iterative approaches:** Embrace agile methodologies and iterative development in order to deliver quick wins, gather feedback and continuously improve digital solutions.

8. **Allocate adequate resources:** Ensure that sufficient financial, human and technological resources are allocated to support the digital transformation process, considering both short-term and long-term requirements.

9. **Communicate progress and celebrate successes:** Regularly communicate progress, milestones and successes to stakeholders in order to maintain momentum, build trust and showcase the benefits of digital transformation.

10. **Collaborate with other parliaments:** Actively engage with the CIP, other parliaments and international organizations as a way to share knowledge, learn from good practices and foster collaboration.

Findings and recommendations for parliaments

This section presents a concise overview of the key findings of the *World e-Parliament Report 2024* and offers targeted recommendations to support parliaments in their digital transformation journey. Drawing from comprehensive survey data and analysis, it highlights the most significant trends, challenges and opportunities in parliamentary digitalization. The findings span digital strategy adoption, resource allocation, emerging technologies and inter-parliamentary collaboration.

The findings are followed by detailed, actionable recommendations designed to help parliaments at various stages of digital maturity enhance their technological capabilities, improve governance and strengthen their engagement with citizens. They are intended to serve as a practical guide for MPs, senior leadership and staff seeking to navigate the complex landscape of digital transformation.

Findings

The findings of this report are as follows:

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d. Parliaments with strong data management practices and well-defined approaches to digital transformation will find it easiest to implement AI.

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Recommendations

Starlink antennas on the roof of the Parliament of Kiribati.
© IPU/CIP

Based on these findings, the report makes the following recommendations for parliaments:

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   b. Contribute to and use shared resources, such as open-source tools and good practice guides.

   c. Organize regular inter-parliamentary conferences and workshops on digital transformation.

The broadcasting room in the Parliament of Mauritius. © Parliament of Mauritius

Benchmarking the digital parliament

The technological landscape of parliaments is undergoing a significant transformation, driven by the need for greater efficiency, transparency and more effective public engagement. Looking to the future, traditional, siloed systems are giving way to more integrated, intelligent and cloud-based solutions. AI, machine learning and natural language processing are revolutionizing everything from document management to cybersecurity. These technologies are enabling parliaments to automate routine tasks, gain deeper insights from data, and provide more responsive services to members, staff and citizens.

Cloud computing is rapidly becoming the new norm, offering greater scalability and flexibility. This shift is allowing parliaments to move away from expensive on-premises data centres and towards more agile, cost-effective digital infrastructures. Parliaments are adopting increasingly advanced cybersecurity solutions, often AI-driven, in response to the ever-evolving threat landscape. Traditional perimeter-based security is giving way to more sophisticated, zero-trust architectures that better protect parliaments' digital assets.

As these new technologies develop, many legacy systems are becoming obsolete. Traditional phone systems, stand-alone document management solutions and paper-based processes are being phased out in favour of more integrated, digital alternatives.

The rise of artificial intelligence

Deputy Soraya Santos showing the Infoleg App in the Brazilian Chamber of Deputies. © Chamber of Deputies of Brazil

This report shows that 29% of parliaments are now using AI in some form or other, representing a significant increase since 2020 (when 10% were using it, almost exclusively on an experimental basis). This rapid rise in AI usage should come as a surprise. Moreover, the prediction that AI will take on increasing importance in future reports, and that adoption levels will rise quickly, can be made with a high degree of confidence.

Currently, 11% of parliaments state that they have legal regulations governing AI usage and 14% report having internal procedures on this subject. It is possible that some parliaments may consider their existing regulations sufficient to manage their current or planned use of AI, at least in the short term. AI usage within parliaments is often being reviewed in piecemeal fashion, with 39% considering AI adoption on a project-by-project basis. A mere 7% of parliaments have holistic legislation and internal regulations to manage AI deployment responsibly. These low figures are consistent with the early stages of the AI adoption curve and are likely to increase significantly over the next few years.

In a recent IPU issue brief entitled *Using generative AI in parliaments*,[2] the CIP anticipated this trend and noted that AI capabilities would continue to evolve and improve at pace. While the main focus of current inter-parliamentary collaboration on AI is around embedding this technology within parliament's own systems, generative AI (GenAI) has already started to appear in the third-party software parliaments use. Parliaments need to understand the implications of this development, the pace of which creates risks that require strong governance and good management practices. It is also important for parliaments to recognize that bringing in AI cannot happen in isolation. GenAI systems can only be effective if they have access to high-quality, well-structured data. Parliaments with strong data management practices and well-defined approaches to digital transformation will find it easiest to implement AI. Given that the impact of GenAI will be felt right across the institution, and that its implications can be strategically significant, it is important for senior management to have a strong understanding and a firm commitment to lead.

Good practice for implementing GenAI involves having well-organized data, a strong culture of digital transformation where business and ICT teams work together, and senior leadership who understand and own the strategic use of AI.

The CIP, through its Parliamentary Data Science Hub, is spearheading the development of guidelines for the effective use of AI in parliaments. This initiative is part of a collaborative project involving 14 parliamentary chambers, and led by the Chamber of Deputies of Brazil, the European Parliament and the CIP.[3]

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2   IPU, *Using generative AI in parliaments* (Geneva: IPU, 2024): www.ipu.org/resources/publications/issue-briefs/2024-04/using-generative-ai-in-parliaments.

3   IPU, "Co-creating guidelines on AI governance in parliaments", *IPU Innovation Tracker*, Issue 17, 31 May 2024: www.ipu.org/innovation-tracker/story/co-creating-guidelines-ai-governance-in-parliaments.

Technology trends

A parliamentarian using the Electronic Voting System in the Parliament of Andorra. © Parliament of Andorra

This section discusses the key trends across this report series, with a particular emphasis on comparing findings from 2016, 2020 and 2024. The wave of innovation that hit during the COVID-19 pandemic put ICT front and centre, elevating digital from the back office to the boardroom. Although this movement has subsided, as of 2024, many parliaments have embarked on modernization initiatives, investing not simply in new systems but in wholesale digital transformation programmes that reshape the way they work.

Leadership and management of ICT

Governance and strategy: The report series shows a significant and steady rise in the percentage of parliaments with ICT strategies and visions in place, with the share of respondents reporting having such strategies rising from 43% in 2016 to 70% in 2020. This stronger focus on the strategic use of ICT is reflected in the 2024 survey, in which 68% of parliaments said they had multi-year digital strategies in place, and 73% formal modernization programmes – figures that show a significant push towards digital transformation. The increasing significance of ICT is also reflected in the share of parliaments and chambers in which secretaries general take an active role in ICT governance (69% in 2024, up from 51% in 2020).

Figure 2.   Parliaments with a formal digital strategy
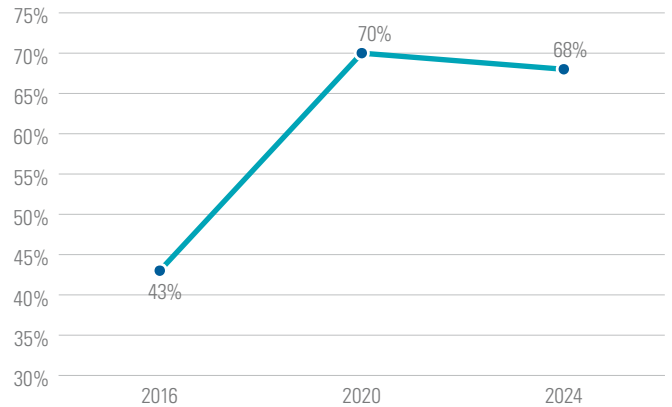
Budgets: Insufficient funding and staffing shortages have remained significant challenges throughout this report series, with 59% and 48% of respondents respectively citing these as concerns in the 2024 survey. However, the data series indicates a pattern of increased investment (as a percentage of overall budget) across parliaments. The percentage of parliaments allocating 1% or less of their budget to ICT fell from 23% in 2012 to 16% in 2020. By 2024, 20% of parliaments said they allocated over 10% of their budget to ICT, up from 15% in 2020, reflecting the growing importance of digital technologies.

Innovation and learning: The vast majority of parliaments have become more innovative since the pandemic, with 84% of respondents stating that this was the case in the 2022 survey. As of 2024, 34% of parliaments have a formal innovation strategy (up from 26% in 2020) and 66% have informal methods to encourage innovation. The survey for this report shows that innovation continues to be supported, along with an increase in inter-parliamentary collaboration: 82% of parliaments cited "learning from other parliaments" as a key enabler.

Figure 3.   Parliaments with a formal innovation strategy
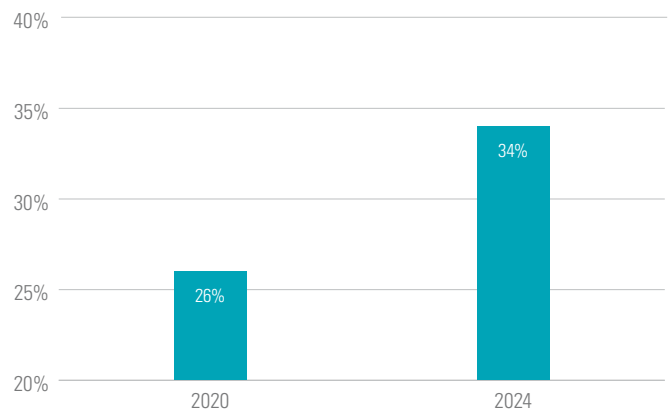
Supporting users in parliament: The way that digital technologies are developed and deployed has changed since the early iterations of this report. The pandemic accelerated this change and highlighted the need for new ways of delivering digital solutions. Digital transformation is about holistic, user-centred change, where more innovative and agile methodologies allow for rapid deployment and flexible, iterative development. The generation of use cases maps out how digital solutions change culture and process for users, and the internet and remote working have reshaped working practices for MPs and staff.

Emerging technologies

Artificial intelligence: The rapid rise of AI usage in parliaments is discussed above. This report shows that, in the space of eight years, AI has moved from a novelty through to an experimental tool and now into production. To put this in context, the 2016 report cited only one example that might be considered AI. By 2020, 10% of parliaments were experimenting with early forms of GenAI. As of 2024, this has increased substantially to 29%. Twenty per cent of parliaments are now using this technology for transcription, 10% for translation and 15% for cybersecurity. A further 44% plan to use AI for transcription in the future.

Figure 4. Adoption of AI among parliaments
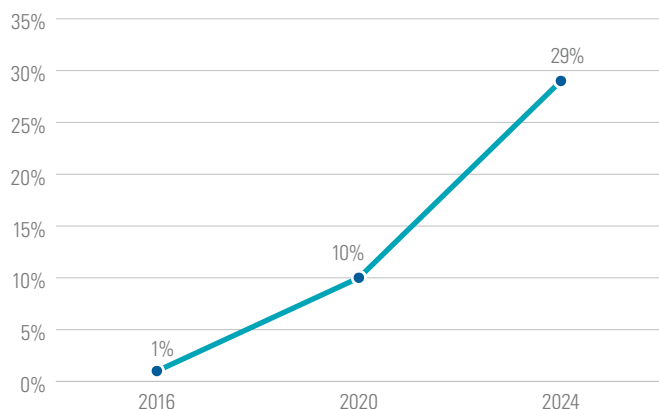
Cloud technology: The share of parliaments using cloud storage increased from 12% in 2016 to 39% in 2020, a rise of 86%. In the 2024 survey, 68% of parliaments said they were using some form of cloud service (private, public or government cloud), representing an increase of 74% since 2020.

Figure 5. Adoption of cloud technologies among parliaments
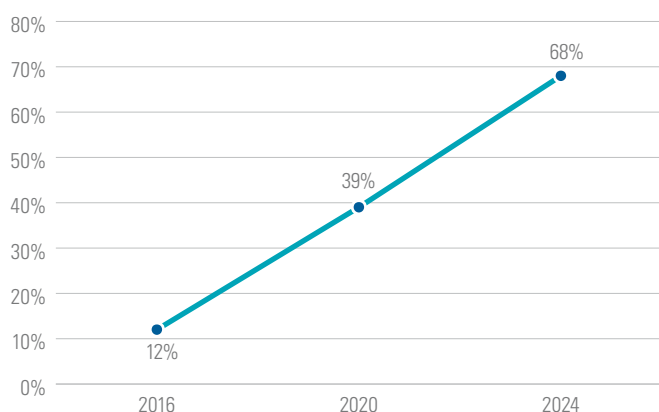
Cybersecurity: Cybersecurity has gained importance over time. In 2020, 70% of parliaments had adopted or planned to adopt national cybersecurity standards. As of 2024, this figure has risen to 91% of respondents. The survey for this report also reveals that 79% of parliaments have provided cybersecurity training to staff and 63% to MPs in the past two years.

Consistent trends

Social media: Social media overtook traditional broadcasting as the most widely used medium by parliaments to communicate with the public in 2016. This trend has continued, with 76% of parliaments using this channel in 2020, and 98% in 2024.

Figure 6. Parliaments using social media
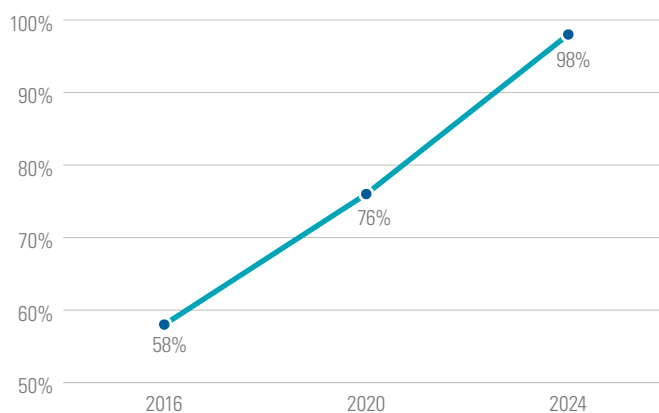
Open data: The 2008 report noted that open, machine-readable data could be a catalyst for more public engagement with parliament. While there has been a slight increase in the use of application programming interfaces (APIs) over time, the share of parliaments publishing open data has remained relatively unchanged since 2016, with the rate of adoption proving to be slower than anticipated. In 2024, PDF remains the primary format for publishing parliamentary data.

Websites and email: Websites remain critical for providing information and engaging with the public. Email remains the most widely used digital method for MPs to communicate with citizens.

Digital divide: A persistent digital divide is evident across this report series, with parliaments in low-income countries lagging behind their counterparts in high-income countries when it comes to ICT adoption. In 2024, only 13% of legislatures in low-income countries reported providing searchable parliamentary information, compared to 65% of those in high-income countries.

Declining technologies

Radio broadcasting: The use of radio to broadcast parliamentary business and information has been declining throughout the report series as the focus has shifted to digital audio and visual media. In the 2024 survey, only 29% of parliaments said they were using radio broadcasting.

Manual recording of verbatim reports: There has been a steady decline in the share of parliaments using manual recording and transcribing methods – from 47% in 2010 to only 26% in 2024 – as more legislatures have adopted digital alternatives.

Digital Maturity Index

Renovation of the committee room in the Chamber of Deputies of Chile. © Photography department, Chamber of Deputies of Chile

This section presents a set of benchmarks based on the responses of individual parliaments and chambers, serving as a guide for establishing different levels of digital maturity.

The purpose of benchmarking is not to create a league table of "good" or "bad" parliaments. Rather, it supports strategic decision-making on the use of digital technologies by highlighting the factors that can affect maturity.

Benchmarking digital maturity helps parliaments in a number of ways. Defining what constitutes "good practice" in a parliamentary setting allows parliaments to adapt and improve their own digital practices and initiatives. It also helps parliaments to set their own strategic priorities and to measure progress, and encourages collaboration as parliaments learn from and share with each other. There are some common factors to be expected, such as strong leadership, a strategic plan and a sufficient budget, as well as a level of technology adoption and some identifiable innovative practices. Having a benchmark highlights parliaments that others might wish to engage with or compare themselves against in order to support their own modernization and digital transformation programmes.

Benchmarking is subjective and the data in this report is based on a self-assessment. Responses can contain overestimates, underestimates and, of course, errors. It is not possible to define what a "digitally mature" parliament is without considering the context and constraints of individual circumstances. The concept is flexible, dynamic, and differs from one institution to another.

Figure 7.   Digital maturity distribution across all parliaments
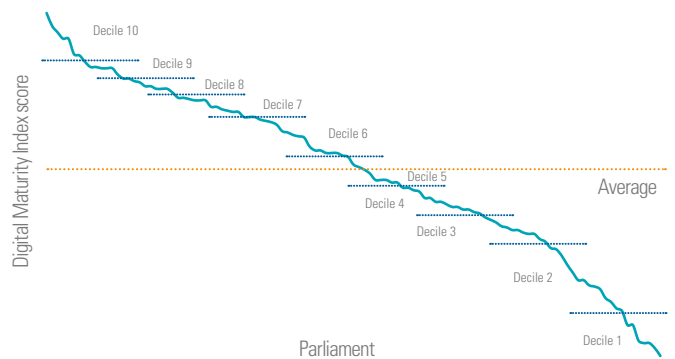
Digital maturity by subject area

User support and infrastructure are the strongest areas; public engagement emerges as a weak spot.

Digital maturity has been broken down into the core categories (or subject areas) of the report. When plotted against a possible maximum score, it shows that the strongest areas for parliaments in general are infrastructure, supporting users in parliament, and parliamentary systems. Infrastructure, which is at the core of the digital parliament, is a relatively strong area even for the lowest-maturity respondents, with all parliaments having some digital infrastructure. However, strong digital maturity is dependent on more than equipment and systems. It requires investment in good governance and strong management practices. The analysis shows that digital governance, strategy and management is a weaker area for many parliaments.

Figure 8.   Average digital maturity by category

Digital Maturity Index	43%
Digital governance, strategy and management	43%
Infrastructure	56%
Parliamentary systems	35%
Supporting users in parliament	55%
Digital content and publishing	46%
Public engagement	31%
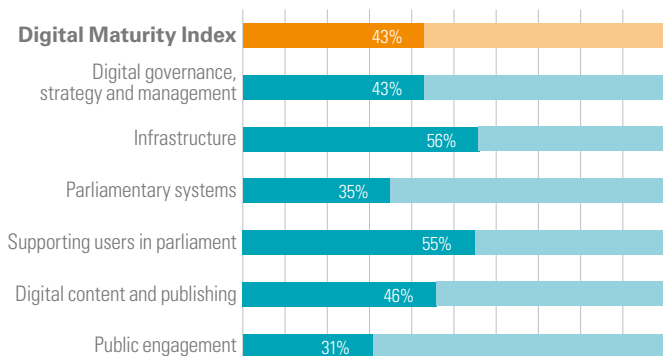
The Digital Maturity Index also highlights weaknesses in public engagement (in both strategies and practice). These are discussed later in this report.

Figure 9 depicts the data in a different way, highlighting the range of differences between the highest, lowest and average Digital Maturity Index scores for each topic.

Figure 9.   Digital maturity score distribution by topic

···•··· Highest   ···•··· Lowest   ···•··· Average
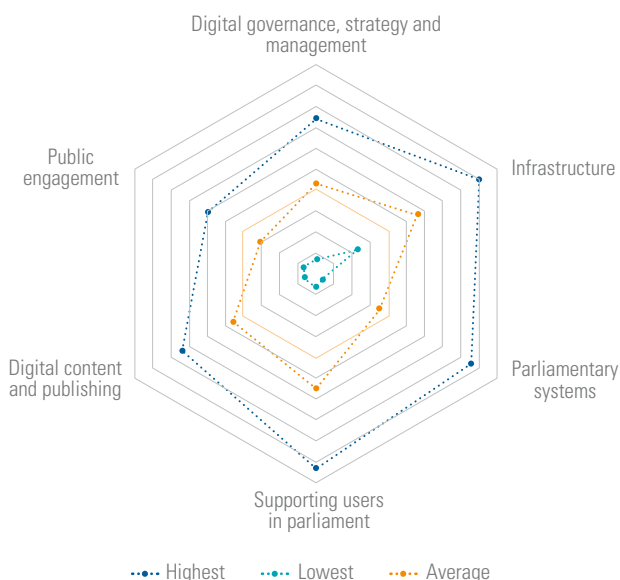
Factors affecting digital maturity

The stark and persistent digital divide between parliaments points to a significant gap in technology adoption and implementation between legislatures in countries at different income levels. Almost half of respondents in high-income countries (44%) rank among the top 30 parliaments and chambers in terms of digital maturity. By contrast, almost two thirds of parliaments in low-income countries (63%) and just over half of those in lower-middle-income countries (52%) rank among the lowest 30 for digital maturity.

In the following tables and figures, respondents are grouped into decile rankings,[4] with 10 being the most digitally mature and 1 the least.

4   A decile ranking divides a data set into 10 equal parts, with each part representing 10% of the data, allowing for comparisons based on positions within these 10 groups.

Country income level is the most significant predictor of digital maturity.

Figure 10. Distribution of parliaments by country income level for each decile

■ 1 ■ 2 ■ 3 ■ 4 ■ 5 ■ 6 ■ 7 ■ 8 ■ 9 ■ 10
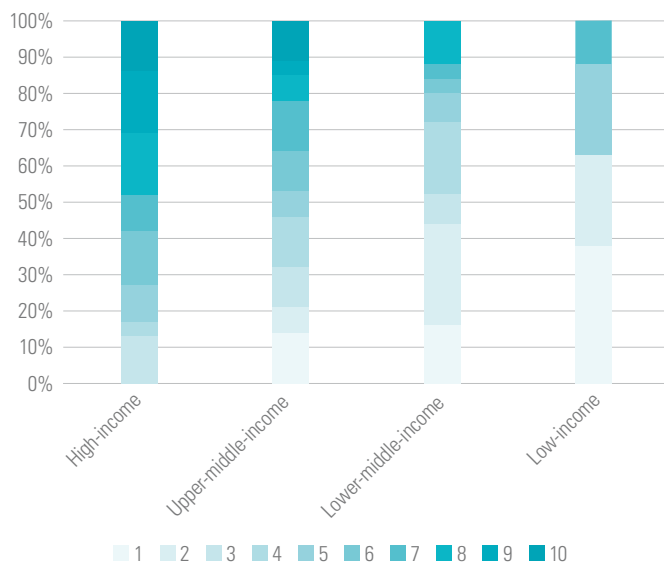
This imbalance is reflected in the distribution of digital maturity by country income level, showing that parliaments in low-income and lower-middle-income countries are more likely to fall below the average digital maturity level. While 30% of legislatures in high-income countries rank in deciles 10 and 9 (13% in decile 10), no parliaments in low-income countries rank higher than decile 7. This divide becomes even more stark with the observation that 38% of parliaments in low-income countries fall into the lowest decile, and 53% are ranked in the lowest quartile. Conversely, no parliaments in high-income countries rank below decile 3.

Figure 11. Digital maturity distribution by country income level

—— High-income   —— Upper-middle-income

—— Lower-middle-income   —— Low-income   ···• Average
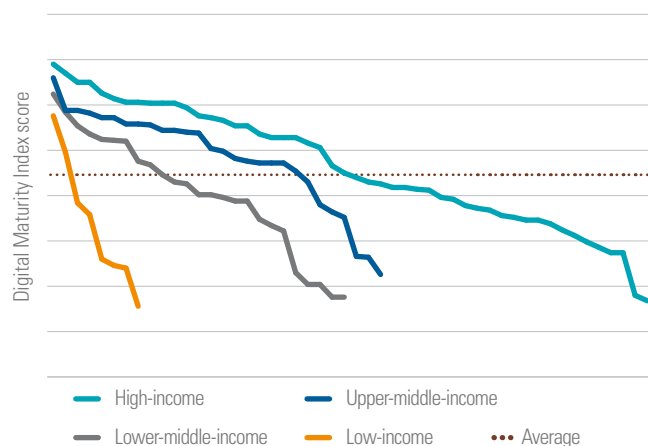
Geographical region is also a factor in parliaments' digital maturity. Parliaments in Europe make up 44% of the 30 highest-ranked legislatures, while those in the Americas account for 43% of this number. Conversely, 56% of parliaments in the Pacific region and 50% of those in sub-Saharan Africa rank among the 30 least digitally mature legislatures. Only 7% of parliaments in sub-Saharan Africa rank in the top 30 in this

survey. While the Pacific region fares better, the region's ranking is skewed by the presence of Australia and New Zealand. The fact remains that small Pacific Island parliaments are struggling to keep pace with digital innovation, as are many parliaments across Africa.

Table 1.   Distribution of parliaments by region for each decile ranking

Decile	Americas	Asia	Europe	Middle East and North Africa	Pacific	Sub-Saharan Africa
10	31%	-	12%	11%	-	-
9	8%	-	20%	11%	-	-
8	8%	8%	15%	-	22%	14%
7	8%	8%	12%	11%	11%	7%
6	23%	15%	12%	22%	-	-
5	8%	15%	12%	-	11%	7%
4	8%	23%	2%	11%	-	18%
3	-	23%	10%	11%	-	14%
2	-	8%	5%	-	11%	25%
1	8%	-	-	22%	44%	14%

Figure 12. Digital maturity distribution by region

Americas   Asia   ••• Average
Europe   Middle East and North Africa
Pacific   Sub-Saharan Africa
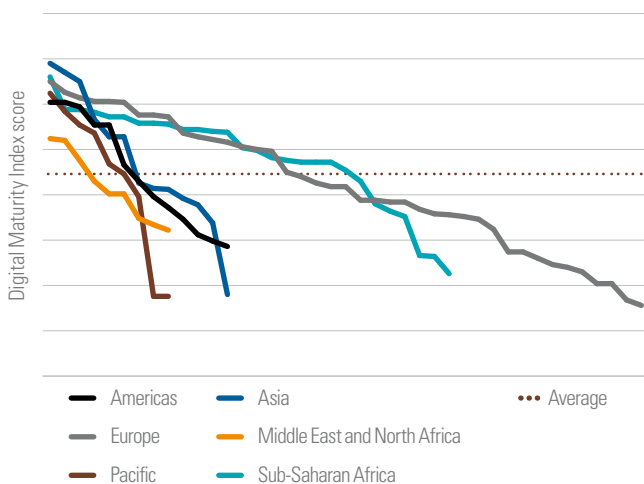
There is a less pronounced difference and a greater spread of parliaments across the rankings based on size. This may be because many of the small chambers that responded to this survey were the upper houses of bicameral parliaments in relatively high-income and developed countries.

Table 2.   Distribution of parliaments by size for each decile ranking

Decile	Small	Medium-sized	Large
10	8%	10%	9%
9	8%	7%	13%
8	10%	14%	13%
7	10%	7%	13%
6	13%	10%	9%
5	6%	17%	4%
4	8%	10%	13%
3	13%	5%	17%
2	10%	10%	9%
1	13%	12%	-

Assessment of digital maturity of parliaments in the survey

The Digital Maturity Index (Table 3) shows a list of parliaments grouped into deciles (10 being the most digitally mature and 1 the least). Bicameral parliaments that submitted a single survey entry for both houses have been combined (which is why, for example, Austria and the United Kingdom appear as a single entry). However, where chambers in bicameral parliaments submitted individual responses, these have been kept separate (for instance, there are separate survey entries for the Senate of Brazil and for the Chamber of Deputies of Brazil). Within deciles, parliaments are listed alphabetically.

Table 3.   Decile rankings of digital maturity for all parliaments included in the survey

Country	Digital Maturity Index	Digital governance, strategy & management	Infrastructure	Parliamentary systems	Supporting users in parliament	Digital content & publishing	Public engagement
Brazil – Chamber of Deputies	10	9	7	10	4	10	9
Brazil – Senate	10	8	9	10	10	9	10
Canada – House of Commons	10	10	8	6	9	6	6
Chile – Chamber of Deputies	10	7	9	10	8	10	8
European Parliament	10	10	10	10	3	8	6
Finland	10	6	10	9	7	10	9
Ireland	10	9	10	6	9	9	9
Israel	10	6	10	9	9	10	4
Paraguay - Chamber of Deputies	10	9	5	8	3	9	10
Slovakia	10	10	10	9	8	10	9
Austria	9	7	9	6	10	8	10
Bahrain	9	8	6	10	7	8	9
France – Senate	9	5	8	10	6	8	10
Italy – Senate	9	6	9	8	9	9	6
Latvia	9	7	8	8	4	10	5
Paraguay - Senate	9	6	7	10	7	7	10
Slovenia	9	8	5	10	4	10	8
United Kingdom	9	9	9	6	8	10	8
Australia	8	7	9	8	8	6	7
Chile – Senate	8	9	9	7	4	8	8
Estonia	8	5	9	10	7	9	5
Poland – Sejm	8	2	7	10	7	9	5
Republic of Korea	8	8	6	8	9	6	7
South Africa	8	9	10	8	10	4	5
Spain – Senate	8	4	9	4	4	7	4
Switzerland	8	10	7	7	4	9	8
Ukraine	8	9	6	6	4	8	10
Zimbabwe	8	8	8	9	8	6	8
Burundi – Senate	7	4	6	7	3	6	10
Canada - Senate	7	5	10	9	8	8	8
Fiji	7	7	7	5	9	6	7
Germany - Bundestag	7	7	3	5	4	4	2
Hungary	7	5	8	9	7	8	1
Italy – Chamber of Deputies	7	7	7	8	3	8	5
Mauritius	7	10	8	7	7	7	3
Montenegro	7	2	5	5	2	10	9
Morocco	7	6	9	8	1	5	8
Norway	7	7	8	8	6	6	5
Thailand – Senate	7	10	9	5	6	4	5
Bahrain	6	6	8	7	9	3	4
Kazakhstan – Mazhilis	6	5	3	3	9	4	8
Luxembourg	6	6	4	7	4	6	8
Netherlands – House of Representatives	6	6	6	6	6	10	1
Portugal	6	1	7	10	8	5	3
Romania	6	1	5	10	1	6	4
Spain – Congress of Deputies	6	4	6	9	4	8	7
Suriname	6	8	8	4	10	4	7
Thailand – House of Representatives	6	10	5	8	2	5	6
Trinidad and Tobago	6	5	5	2	4	7	9
Tunisia	6	4	7	8	2	5	5
Armenia	5	2	3	7	7	6	6
Burundi	5	6	7	3	1	3	8
Cambodia	5	9	3	1	8	5	6
Denmark	5	2	5	7	4	7	5
Greece	5	3	6	5	2	7	2
Guyana	5	5	6	3	3	3	7
Iceland	5	2	5	4	8	7	5
Malawi	5	4	5	3	2	4	9
New Zealand	5	4	6	5	8	5	3
North Macedonia	5	3	6	7	1	6	3
Sri Lanka	5	3	2	5	7	6	7
Algeria	4	7	7	2	4	4	2
Cyprus	4	4	4	5	9	4	4
Kenya	4	8	4	4	2	3	3
Malaysia	4	4	4	3	4	2	10
Namibia	4	4	2	4	4	5	7

Country	Digital Maturity Index	Digital governance, strategy & management	Infrastructure	Parliamentary systems	Supporting users in parliament	Digital content & publishing	Public engagement
Pakistan – National Assembly	4	9	4	3	6	3	4
Zambia	4	8	6	6	6	2	1
Andorra	3	6	4	5	2	3	1
Angola	3	5	5	4	6	2	3
Botswana	3	4	3	3	2	4	6
China	3	9	2	2	8	3	3
Germany - Federal Council	3	2	6	5	4	10	6
Ghana	3	5	4	3	6	2	4
Japan – House of Representatives	3	1	3	6	8	5	2
Kazakhstan – Senate	3	2	7	5	2	8	7
Kuwait	3	4	3	4	7	3	2
Monaco	3	6	2	3	7	2	6
Romania	3	1	3	5	1	6	5
Seychelles	3	7	4	3	3	2	5
Azerbaijan	2	1	2	7	1	1	4
Bhutan	2	3	2	2	1	4	2
Eswatini	2	3	1	1	3	5	1

Country	Digital Maturity Index	Digital governance, strategy & management	Infrastructure	Parliamentary systems	Supporting users in parliament	Digital content & publishing	Public engagement
Ethiopia	2	3	3	3	9	3	2
Lesotho	2	3	3	1	7	1	3
Mozambique	2	4	2	1	2	3	7
Pan-African Parliament	2	4	6	2	1	1	3
Republic of Moldova	2	3	1	5	2	6	1
Tanzania	2	2	2	2	1	2	3
Vanuatu	2	3	3	2	3	1	3
Central African Republic	1	1	1	4	1	1	1
Djibouti	1	2	1	2	1	1	1
Kiribati	1	2	1	1	4	2	3
Lebanon	1	1	1	1	1	1	1
Lesotho	1	3	3	1	3	2	2
Madagascar	1	2	1	1	1	1	3
Mexico	1	1	1	4	4	3	5
Palau	1	1	2	1	2	1	2
Tonga	1	9	1	1	1	1	1

Presentation on how AI-based transcripts are generated to transform speech into text as the basis for records of parliamentary deliberations in the Bundestag. © German Bundestag

Current state of parliamentary technologies and practices

This section presents a summary of the key findings of the report for each category, i.e. digital governance, strategy and management; infrastructure; parliamentary systems; supporting users in parliament; digital content and publishing; public engagement; and inter-parliamentary collaboration. This is followed by detailed analysis and in-depth discussion of the findings, which readers are encouraged to explore should they wish to find out more about a specific topic, question or technology.

Summary of findings

An audiovisual technician recording using the old analogue system on cassettes. © Parliament of Malawi

This section presents a summary of the survey of parliaments. It is intended as a 'quick read', highlighting key findings and trends.

Digital governance, strategy and management

Over two thirds of parliaments (68%) now have multi-year digital strategies.

Digital transformation supports the modernization of parliaments, helping legislatures remain in step with the world around them. The path to digital transformation is accelerating across parliaments worldwide, driven by an increasing focus on comprehensive strategies and the involvement of high-level leadership. Over two thirds of parliaments (68%) now have a multi-year digital/ICT strategy. In 73% of cases, this strategy is complemented by formal programmes for modernization. This strategic push is being reinforced by a vision of leveraging technology to create more sustainable parliamentary operations (mentioned by 69% of respondents).

Secretaries general are taking a more hands-on role in digital governance.

Critically, secretaries general are taking a more hands-on role and are involved in ICT governance in 69% of parliaments, a significant jump from 51% four years ago. This trend towards stronger leadership extends throughout parliaments' upper management: senior ICT leaders are shaping strategic direction in 61% of parliaments, while senior management teams are engaged in ICT governance in 69% of cases. This alignment at the top levels signifies a growing recognition of the critical role of ICT in parliamentary operations.

The IPU and ASGP have produced a guide to digital transformation for senior leaders in parliaments.[5] This guide has been designed to help parliaments create a well-governed, properly structured and sustainable digital transformation programme.

Parliaments are channelling more of their budgets into ICT.

As digital capabilities become further ingrained, parliaments are channelling more of their budget into ICT. One fifth of parliaments (20%) now allocate more than 10% of their overall spending to ICT, up from just 15% in 2020. A solid majority (54%) have raised ICT budget allocations since 2012, while 17% have decreased such allocations over the same period.

There is a growing emphasis on building a culture of innovation.

More emphasis is being placed on cultivating a culture of innovation. This is evidenced by the fact that 34% of parliaments have adopted formal innovation strategies (up from 26% in 2020), while 66% employ informal methods. An impressive 82% of respondents cited "learning from other parliaments" as a key enabler of innovation. However, significant roadblocks remain, with insufficient funding reported in 59% of parliaments and 48% of respondents experiencing staffing shortages. Over one third of respondents (37%) said they faced cultural barriers rooted in a limited understanding of the benefits of digital transformation.

Infrastructure

The data provides a detailed overview of the efforts parliaments around the world are making to update their ICT infrastructure and enhance their digital capacities. Almost all parliaments have access to dependable, 24/7 electrical power, with 72% of them equipped with backup diesel generators for use in the case of power outages and emergencies. Internet connectivity is widely available, and 94% of parliaments find it sufficiently reliable. The availability of Wi-Fi access for both members (96%) and staff (88%) is virtually universal.

The typical parliament has an ICT workforce of 24 full-time staff, or 13 ICT staff per 100 MPs.

In terms of human resources, the typical parliament has a workforce of 24 full-time-equivalent (FTE) ICT staff, which translates to a ratio of 13 staff per 100 members. Contractors

also play a significant role, and 20% of parliaments have more contractors than permanent ICT staff. Internal staff are mainly responsible for essential tasks such as user support (98%), data management (97%), web services (97%) and infrastructure management (96%).

Modernization is occurring through widespread cloud adoption, automation of core services, and heightened cybersecurity vigilance.

While 87% of parliaments have on-premises networks, 69% allow remote access through virtual private networks (VPNs). Embracing cloud technologies has been a major area of focus, with an impressive 68% of parliaments currently leveraging some form of cloud service (private, public or government clouds). However, many still favour on-premises deployment for critical applications like databases (88%), content management systems (71%) and publishing (81%).

Eighty-nine per cent of respondents have service-level agreements with external suppliers.

Service management practices are evolving, with 89% of respondents having service-level agreements (SLAs) with at least some external suppliers, although only 19% have implemented internal SLAs between departments.

Cybersecurity is emerging as a critical topic for parliaments.

Cybersecurity readiness varies: while 70% of parliaments follow national standards, only 53% have internal strategies in place and 41% fall under the oversight of a government agency on cybersecurity matters.

Among parliamentary libraries, 72% have online catalogues and 69% automate acquisition cataloguing. The majority (87%) manage digital repositories, while 81% subscribe to online journals and databases. However, smaller shares of parliaments have adopted emerging technologies such as open data (46%) and artificial intelligence (AI) research tools (13%), showing that there is room for further uptake.

Overall, these findings highlight how parliaments are moving towards ICT modernization through widespread cloud adoption, automation of core services, heightened cybersecurity vigilance and the emergence of AI. Gaps in terms of staffing resources, internet reliability in some regions, sophisticated library technologies, and comprehensive cybersecurity frameworks suggest opportunities for continued growth and knowledge-sharing between institutions.

Parliamentary systems

The digital parliament is about how ICT can be used to transform processes and relationships, inside parliament and beyond.

Many parliaments have embraced digital tools as they look to modernize, streamline and improve the way they work. It has been clear through many iterations of this report that the digital parliament is not about ICT per se, but rather about how ICT (in the broadest sense) can be used as a tool to transform processes and relationships, inside parliament and beyond.

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5   Inter-Parliamentary Union (IPU) and Association of Secretaries General of Parliaments (ASGP), *Guide to digital transformation in parliaments* (Geneva: IPU/ASGP, 2023): https://www.ipu.org/resources/publications/reference/2023-09/guide-digital-transformation-in-parliaments.

Parliaments are increasingly turning to digital tools to improve their practices in areas such as document management, voting, record-keeping and archiving, as well as to improve the flexibility and capability of the services offered to MPs, including in the plenary chamber and committee rooms.

Digital tools have become significant strategic assets and ICT departments are increasingly critical to the mission of parliaments.

Consecutive reports in this series have highlighted how digital tools have come to be seen as significant strategic assets for parliaments. Because of this, ICT departments have become increasingly critical to the mission of parliaments and vital in ensuring their smooth working. Over time, this report series has emphasized how the ICT function has moved up parliamentary organizational charts: once an administrative or support activity, it is now represented at the highest strategic level in many modern parliaments.

Overall, the digital parliament is a more efficient and transparent place to conduct legislative activities, as parliaments leverage new technologies to enhance the legislative process, as well as to facilitate openness and greater public participation.

Critically, the findings confirm the widespread adoption of IT systems for essential legislative processes: more than half of the parliaments surveyed said they had implemented systems for bill drafting (51%), amendment drafting (51%) and bill tracking (63%), while an impressive 73% now maintain a database of laws passed. This trend underscores the growing recognition of the importance of digitization in streamlining parliamentary operations and making them more efficient.

A substantial majority of parliaments use digital systems for plenary activities but stark disparities remain across regions and country income levels.

The data shows that a substantial majority of parliaments use digital systems for plenary activities, such as calendars, schedules, minutes, speeches, debates and voting. The adoption rates for these functions range from 67% to 75%, highlighting the widespread integration of technology into the day-to-day functioning of parliaments. Adoption rates are similarly high for committee-related functions including reports, calendars and minutes, ranging from 57% to 69%.

Yet the data also highlights stark disparities in the adoption of ICT across regions and country income levels. Parliaments in high-income countries, as well as those in Europe and the Americas, lead the way, with an average of 16–17 functional areas supported by IT systems. In contrast, parliaments in low-income countries, as well as in sub-Saharan Africa and the Pacific, are lagging behind, with digital tools used in only 9–10 functional areas on average. This "digital divide" underscores the need for targeted efforts to bridge the gap and ensure equal access to technology in parliamentary settings.

One in five parliaments now permits remote voting in the plenary.

On the subject of document management, 57% of parliaments have implemented systems for managing bill texts, incorporating features such as version control, amendment handling and workflow capabilities. While manual voting remains prevalent (51% in plenary and 80% in committees), there has been a notable rise in the adoption of remote voting (20% in plenary) and electronic voting methods, suggesting a gradual shift towards more technologically advanced voting processes.

Digital recording using PC-based transcription tools has emerged as the most widely adopted method for maintaining the parliamentary record (62%), with speech recognition technology gaining traction (31%). Live-streaming of plenary proceedings has become commonplace, with 87% of parliaments embracing this practice. The use of large-screen displays in chambers and committee rooms is a prevalent practice, with about 80% of parliaments employing this technology to enhance the visibility and accessibility of parliamentary activities.

Digital archiving and preservation are important to parliaments, with 52% of respondents reporting that they had implemented policies for the digital preservation of parliamentary documentation. A higher share of parliaments focus on preserving contemporary records (69%) than on historical records (56%), pointing to growing recognition of the importance of safeguarding and providing access to current legislative records.

Parliaments are using AI for tasks such as transcription, translation and cybersecurity.

While the adoption of AI within parliamentary processes is still in its early stages, the report reveals a growing interest in leveraging this transformative technology, with 29% of parliaments now using it and more planning to do so. Although current AI adoption rates for functions like transcription, translation and cybersecurity remain low, a significant portion of parliaments (35–44%) have plans to implement AI in these areas in the future. However, the adoption of AI for core legislative functions, such as drafting bills and analysing citizen submissions, remains limited (about 2%), and only 27% of parliaments plan to explore these applications at present.

The IPU's issue brief *Using generative AI in parliaments*[6] encourages parliaments to experiment with AI and to learn about its potential. However, it notes that they should proceed with extreme caution, particularly when exploring its use in support of core legislative functions.

In conclusion, the digitization of parliamentary functions continues to progress at a steady pace. This can be seen in parliaments' increasing reliance on digital tools to enhance efficiency, transparency and accessibility. However, the findings also underscore the need to address disparities in adoption across regions and country income levels, in order to ensure a more inclusive and equitable digital transformation of parliaments worldwide. As technology continues to evolve, it is important for parliaments to adapt and leverage these advancements.

6   IPU, *Using generative AI in parliaments* (Geneva: IPU, 2024): https://www.ipu.org/resources/publications/issue-briefs/2024-04/using-generative-ai-in-parliaments.

Supporting users in parliament

This section delves into the provision of hardware, software and user support services, highlighting the differences between parliaments in high-income and low-income countries. It also explores training and development priorities for both MPs and ICT staff, with a particular focus on the critical importance of cybersecurity awareness and technical certifications. By analysing these key aspects, the report provides valuable insights into how parliaments are adapting to the new and evolving technological landscape, ensuring that members and staff are well equipped and suitably trained to navigate it.

Ninety-six per cent of parliaments provide hardware to MPs and staff, and 90% provide applications.

A significant majority of parliaments provide ICT equipment, tools and support services to MPs, with 96% providing hardware and 90% offering applications. Parliaments in high-income countries are more likely to provide these resources than their counterparts in low-income countries.

The top training priorities for ICT staff are cybersecurity (77%), AI (43%), application development and maintenance (42%), and cloud services (41%).

Alongside hardware and applications, user support and training are also widely available, with 97% of parliaments offering these services to MPs. Cybersecurity training is increasingly important: in the past two years, 79% of parliaments have provided this training to staff, and 63% to members.

For ICT staff, cybersecurity is the top training priority (77%), followed by AI (43%), application development and maintenance (42%), and cloud services (41%). While priorities vary based on parliaments' size, region and country income level, cybersecurity is consistently the highest-rated priority for ICT staff training.

Fifty-six per cent of parliaments encourage or require formal technical certification for ICT staff.

Fifty-six per cent of parliaments encourage or require formal technical certification and, where this happens, this certification covers an average of five technical areas. The main areas for certification are information systems security (74%), networking (67%) and IT infrastructure (65%).

The report highlights the importance of providing adequate ICT resources, training and support to members and staff, with a strong and increasing emphasis on cybersecurity and professional development for ICT staff.

Digital content and publishing

This report series has shown parliaments making significant progress in improving the provision and management of digital content. One key area of focus has been accessibility, with many parliaments implementing features such as closed captioning, audio descriptions and user-friendly interfaces to ensure that their digital content is accessible to people with disabilities. This inclusive approach ensures that all citizens can engage with, and benefit from, the information and services provided by their parliaments.

Adoption rates for open data continue to grow more slowly than anticipated, despite its obvious democratic value.

In terms of open data, the growth anticipated in the 2016 issue of this report has not materialized and progress has been relatively slow. Despite this, several parliaments have developed or enhanced their open data portals, making parliamentary data more readily usable by external entities. This move towards greater transparency and openness encourages civic engagement and allows for more informed public discourse.

Just over half of parliaments have a formal policy for managing digital content creation, publishing and distribution.

While just over half of parliaments have a formal policy for managing digital content creation, publishing and distribution, fewer have a specific policy for open data publishing. Country income level and region play a significant role in determining whether parliaments have these policies in place, with those in high-income countries and in Europe being more likely to do so.

Parliaments use social media and websites to publish information and engage with the public.

Parliaments primarily use social media and websites to publish information and engage with the public. Video content, live-streaming and broadcast TV play significant roles in parliaments' digital media strategies. Overall, a wide range of content is available on parliamentary websites, with most providing information about MPs, as well as about parliament's functions and activities. The accessibility of content is important.

Parliaments in high-income countries are leading the way on open data utilization, with those in lower-middle-income countries lagging behind.

Fifty-seven per cent of parliaments publish digital content in more than one language and 72% make content available in a format that is accessible for people with disabilities. Although the prevalence of open data publishing has remained largely unchanged since 2020, there has been an increase in the use of application programming interfaces (APIs). And while PDFs remain the primary medium used for publishing, they often present data in a fixed, non-machine-readable format. This makes data difficult to extract, analyse and reuse programmatically, which is a key requirement for open data initiatives.

Looking to the future, parliaments plan to focus on integrating AI technologies, developing mobile-friendly websites, producing open data, improving accessibility, and enhancing cybersecurity measures. Other priorities include expanding digital infrastructure and modernizing through e-Parliament initiatives, especially for parliaments in developing countries.

Public engagement

Involving the public in the legislative process means a broader range of knowledge and expertise, and more diverse perspectives, leading to more informed decision-making that better reflects citizens' views.

Public engagement helps parliaments to be accountable, transparent, and responsive to the needs and concerns of the citizens they serve. By actively involving the public in the legislative process, parliaments can tap into a wider pool of knowledge and expertise, and bring more diverse perspectives on board. This leads to more informed decision-making that better reflects the interests of the wider community. Effective public engagement can help to build trust and confidence in the democratic process, as citizens feel that their voices are being heard and that they have a stake in shaping the future. This can lead to increased civic participation and a more resilient democracy.

However, the report highlights that while public engagement offers opportunities, prioritizing this practice remains challenging: only one quarter of parliaments identify improving the legitimacy of the legislative process as a priority, and a similarly small proportion consider including citizens in the decision-making process to be important.

Few parliaments have a formal strategy for online public participation, while slightly more have digital education and outreach resources to support engagement.

A minority of respondents reported having a formal strategy for online public participation, while slightly more said they had digital education and outreach resources to support engagement. As such, there is a significant risk that parliaments will not reach all their target audiences through their online public engagement. Responsibility for determining the objectives of online public engagement is shared among various parliamentary staff members and MPs, with the secretary general being the most likely individual to be involved.

Resources for public engagement vary across parliaments, and the data shows that barriers to online public engagement can include citizens lacking skills and training to use the tools provided by parliament, and limited access to the internet. Parliaments in developing countries, and those facing connectivity challenges, poor infrastructure and lower levels of digital literacy, find it more difficult to engage with the public online.

Parliaments have made significant progress in using digital tools to communicate with citizens.

Despite these challenges, parliaments have made significant progress in using digital tools to communicate with citizens, particularly for committees. There has been a notable rise in the use of websites and social media since 2016, primarily for sharing information about the work, scope and process of committees, and for publishing the outcomes of committee work.

While parliaments appear slow to adopt digital tools for analysing public submissions, some have successfully done so and report being able to reach a broader audience. These efforts have included live-streaming, social media and online forums, which have provided easier access to legislative information and may potentially contribute to greater trust in the parliamentary process.

Inter-parliamentary collaboration

Inter-parliamentary collaboration and knowledge-sharing provides parliaments with vital insights and momentum to overcome barriers and unlock innovation.

Inter-parliamentary collaboration is vital to parliaments' ability to function effectively and to adapt to changing circumstances, especially when it comes to technology. The COVID-19 pandemic highlighted the importance of parliaments working together and sharing ideas, enabling them to swiftly transition to virtual ways of working.

The IPU's Centre for Innovation in Parliament (CIP) has played a significant role in facilitating this collaboration. Participation in the CIP has increased from 27% in 2020 to 45% in 2024, with a further 32% of respondents stating their intention to take part in the future. Parliaments also benefit from various inter-parliamentary networks such as the Commonwealth Parliamentary Association (CPA), the European Centre for Parliamentary Research and Documentation (ECPRD), and the International Federation of Library Associations and Institutions (IFLA). These networks provide support and knowledge-sharing opportunities, helping parliaments to strengthen their capacities and learn from one another.

A majority of parliaments are willing to offer support but fewer actually do.

The willingness of parliaments to provide support to others is noteworthy: 70% either already provide such support or are willing to do so, particularly in areas such as legislative processes, staff development and library services. There is potential for increased inter-parliamentary support in emerging fields such as cloud computing and AI. However, the level of support provided varies based on factors such as country income level and parliament size: larger parliaments and those in high-income countries are more active in providing support, while smaller legislatures and those in lower-income countries express a strong willingness to provide support in the future but are less likely to do so at present.

External support is a crucial aspect of parliamentary collaboration.

External support is another crucial aspect of parliamentary collaboration, with 32% of parliaments receiving support either from other parliaments (17%) or from external organizations such as the IPU, the United Nations (UN) and the European Union (EU) (27%). Parliaments in low-income and lower-middle-income countries are more likely to receive support, with parliaments in the Americas being the most likely to be supported by both other parliaments and external organizations.

These findings emphasize the importance of inter-parliamentary collaboration, knowledge-sharing, and support for digital innovation and capacity-building. Despite disparities according to country income level and region, there is a clear willingness among parliaments to support and learn from one another. As parliaments continue to modernize and transform, strengthening these collaborative efforts will be essential to their success.

Detailed analysis of parliamentary technologies and practices

Training for members in the Parliament of Namibia.
© Parliament of Namibia

This section provides a detailed analysis of the survey findings as summarized above. It is grouped according to the seven main categories – or themes – of the report:

- Digital governance, strategy and management
- Infrastructure
- Parliamentary systems
- Supporting users in parliament
- Digital content and publishing
- Public engagement
- Inter-parliamentary collaboration

At the beginning of each section, there is a "top 15" list of parliaments, ranked according to their digital maturity in that area. These lists are based on an analysis of the survey data provided and should therefore be seen as subjective. The lists highlight that, within their overall digital maturity, parliaments can have distinct strengths and weaknesses.

Digital governance, strategy and management

Digital transformation supports the modernization of parliaments as they apply new digital tools and technologies to change processes and cultures and to make their work more efficient and effective. Digital transformation delivers more optimized and user-centric services to MPs, staff and the wider public.[7] But, for it to be effective, leadership and governance are needed.

Table 4. Digital Maturity Index: top 15 ranking of parliaments in digital governance, strategy and management[8]

Country	Digital Maturity Index	Digital governance, strategy & management	Infrastructure	Parliamentary systems	Supporting users in parliament	Digital content & publishing	Public engagement
Canada - House of Commons	10	10	8	6	9	6	6
European Parliament	10	10	10	10	3	8	6
Mauritius	7	10	8	7	7	7	3
Slovakia	10	10	10	9	8	10	9
Switzerland	8	10	7	7	4	9	8
Thailand – House of Representatives	6	10	5	8	2	5	6
Thailand – Senate	7	10	9	5	6	4	5
Brazil – Chamber of Deputies	10	9	7	10	4	10	9
Cambodia	5	9	3	1	8	5	6
Chile – Senate	8	9	9	7	4	8	8
Ireland	10	9	10	6	9	9	9
Paraguay - Chamber of Deputies	10	9	5	8	3	9	10
South Africa	8	9	10	8	10	4	5
Ukraine	8	9	6	6	4	8	10
United Kingdom	9	9	9	6	8	10	8

Digital strategy

Creating a detailed plan for digital transformation is essential for the modern parliament, as this plan will help to define the steps needed to make the programme a success. More than

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7   IPU and ASGP, *Guide to digital transformation in parliaments* (Geneva: IPU/ASGP, 2023), p. 8: https://www.ipu.org/resources/publications/reference/2023-09/guide-digital-transformation-in-parliaments.

8   Some bicameral parliaments submitted a survey response covering the whole parliament. In these cases, they are only identified once in this and subsequent "Digital Maturity Index" rankings.

two thirds of parliaments (68%) reported having a multi-year digital strategy, highlighting the importance of good planning to manage the increasing complexity of digital tools and services. Almost three quarters of parliaments (73%) have a programme for digital transformation, although slightly fewer (69%) have a vision for creating a more sustainable parliament using ICT. Fifty-seven per cent of parliaments have both a multi-year digital strategy and a digital transformation programme in place, and 15% have a digital transformation programme without a multi-year strategy.

Table 5. Strategic planning and digital transformation programmes

Parliament has:	%
A multi-year strategic plan	77%
A multi-year digital/ICT strategy	68%
A programme for digital transformation and/or modernization	73%
A formal vision for creating a more sustainable parliament through digital transformation	69%
A formal project management methodology used for implementing new digital initiatives	56%

Digital leadership

According to McKinsey & Company, "success in digital transformation can be predicted by having the right, digital-savvy leaders, building staff capabilities for the future, empowering people to work in new ways, giving day-to-day tools a digital upgrade and communicating frequently via traditional and digital methods".[9] In the case of parliaments, successful digital transformation also requires strong leadership from those who understand the importance of modernization. Such leaders should be able to create a clear vision and strategy for parliament, and to communicate it clearly and effectively. This observation was borne out in research conducted by the CIP,[10] demonstrating the perceived importance of digital transformation at senior levels within parliaments. This research reported that 83% of secretaries general saw digital tools as critical to the functioning of their parliament, 75% agreed that they improved the legislative process, and 69% concurred that they made parliaments more accountable.

The importance of strong leadership is reflected in the governance of ICT within parliaments. In the parliaments that responded to the survey for this report, the secretary general is involved in ICT governance and oversight in 69% of cases, and the Speaker in 33% of cases. The same figures were 51% and 25% respectively in 2020, suggesting that there is now a greater focus on the strategic use of ICT. Neither the secretary general nor the Speaker is involved in 27% of parliaments, but there is no pattern in terms of size or country income level: these are as likely to be large parliaments in high-income countries with a dedicated chief information officer (CIO) as small parliaments in low-income countries with a small ICT department.

A committee or working group exists in 31% of parliaments, while a senior ICT leader is involved in 61% of cases, and senior management in 69% of cases. While 11% of parliaments reported involving external consultants in ICT governance and oversight, this was always in conjunction with parliamentary staff.

Figure 13. Governance and oversight of ICT
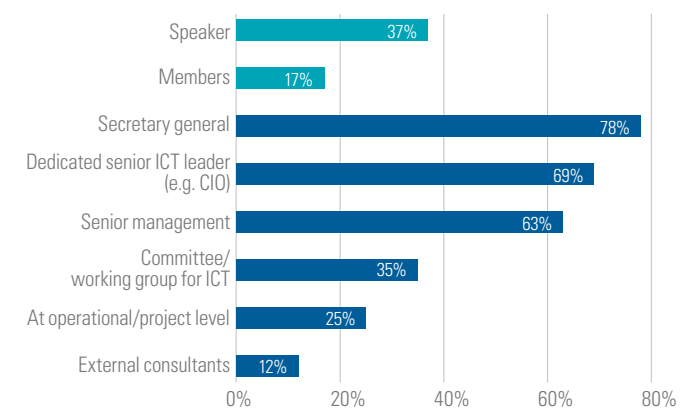
Table 6 highlights the trend over time towards a stronger role for senior leadership in ICT governance, as well as the diminishing role of MPs.

Table 6. Governance and oversight roles, 2012 and 2024

Role	2012	2024
Speaker	56%	33%
Members	14%	15%
Secretary general	67%	69%
Dedicated senior ICT leader (e.g. CIO)	63%	61%
Committee/working group for ICT	28%	31%
External consultants	3%	11%

Eighty-five per cent of parliaments have a dedicated ICT department, and there is a clearly identified ICT leader – such as a CIO, chief technology officer (CTO) or ICT director – in 86% of cases. Embedding digital staff within other departments or units within parliament is a less common practice, occurring in only 28% of cases.

Larger parliaments are more likely than smaller ones to have a CIO, ICT director or equivalent position, with the reported figures being 96% and 77% respectively. The same goes for the existence of an ICT department: 96% of large parliaments have one but only 77% of small ones do. Country income level makes a small difference, with parliaments in high-income countries being slightly more likely to have an ICT department than those in low- or lower-middle-income countries (94% versus 88% respectively). Country income level makes very little difference as to whether a parliament has a dedicated ICT leader.

Four per cent of parliaments have no ICT department and no dedicated leadership in this area, while 10% have an ICT department but no clearly identified senior leadership. Among bicameral parliaments, 38% have a single ICT department and 62% have a separate department for each chamber. Among

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9   McKinsey & Company, "Unlocking success in digital transformations" (2018): https://www.mckinsey.com/capabilities/people-and-organisational-performance/our-insights/unlocking-success-in-digital-transformations.

10 As part of the project to develop the IPU/ASGP guidelines on digital transformation in parliaments.

the latter, 59% of these departments collaborate across chambers on certain tasks and projects.

Figure 14. Structure of ICT departments in bicameral parliaments

- One ICT department supports both chambers
- Each chamber has its own ICT department and they work independently
- Each chamber has its own ICT department but they sometimes work together
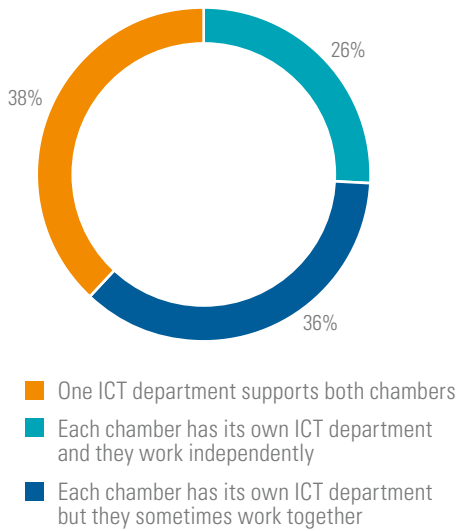
Strategic impact and management of AI

Rapid advances in AI – and in generative AI (GenAI) in particular – are impacting all sectors of society. AI-based tools are already being adopted by parliaments, with 29% reporting that they use the technology in some form. This raises significant issues not just in terms of technology deployment but also in terms of regulations and governance. In 2024, the use of GenAI is one of the most important issues that parliaments are grappling with.

GenAI can speed up content creation and data analysis but concerns exist about transparency, accuracy and responsible use. The road map for introducing GenAI into parliament is similar to that for other new technologies. The technology will undoubtedly make inroads into parliamentary systems, be it indirectly through the applications and systems people are using (such as Microsoft Excel or Google Docs), through specialist GenAI tools (such as ChatGPT), or through core parliamentary systems that implement it directly (such as for legislative drafting, amendment management or transcription). Parliaments must consider the risk profile of tasks for which AI is being considered and put in place internal safeguards, including human oversight, as well as rules to ensure veracity, trust and accountability.

Later sections of this report will discuss how parliaments use (or are considering using) AI. At this juncture, the report looks at the strategic, regulatory and governance issues surrounding it. The survey results point to AI as an emerging field where regulation and governance are often lacking. At this early stage of adoption, the vast majority of parliaments have no regulations or internal procedures in place to manage the use of this technology. Only 11% of parliaments reported having regulations set out in law and 14% said they had internal procedures or regulations. A further 28% reported that there were plans for regulations set out in law and in parliamentary rules. The most likely method for managing AI in parliament at the moment is on an individual project basis: this is happening in 39% of parliaments and is planned in another 24%. Only 7% of parliaments have both legislation on the use of AI and internal regulations governing its use.

Table 7. Regulation of AI

	Yes	Planned	No
Regulations are set out in law	11%	28%	57%
Parliament has internal procedures or regulations	14%	28%	53%
AI usage is considered on a per-project basis	39%	24%	31%
Regulations are set out in law AND in internal procedures or regulations	7%	-	-

Given the potential impact of GenAI and the risks associated with it, particularly around the legitimacy of democratic processes and public trust in parliament, the lack of governance and regulation is an aspect that must be addressed sooner rather than later.

Budget

More parliaments are now allocating at least 10% of their overall budget to ICT than in the past, and fewer less than 5%. Data from the World e-Parliament Report series shows that, in 2012, 23% of parliaments spent less than 1% of their budget on ICT and only 8% spent more than 10%. In 2024, 16% are spending less than 1% and 20% more than 10%. This latter figure reflects a pattern of increased spending at these levels, up from 15% in 2020. This trend is shown in Figure 15, which indicates the percentage of parliaments in each band of relative ICT spend for the current survey, as well as in four-year increments dating back to 2012.

Figure 15. Percentage of overall budget spent on ICT, 2012 to 2024
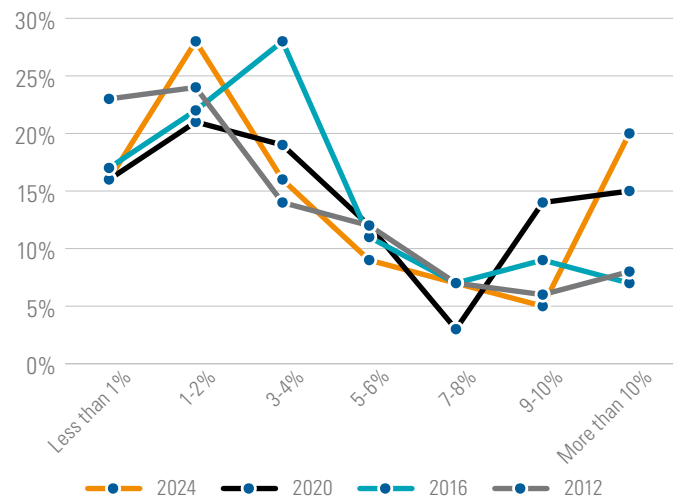
Data from this report series also suggests that levels of investment in ICT, as a percentage of overall budgets, have been steadily increasing for the majority of parliaments, reflecting the increasing importance and "business-as-usual" nature of ICT. Table 8 shows a relative increase in ICT budgets in over half of parliaments (54%) and a fall in only 17% of cases.[11]

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11 Direct comparison of parliaments who participated in surveys for both the 2012 and 2024 reports (n=65).

Table 8.   Change in ICT budgets, 2012–2024

Between 2012 and 2024, the percentage of the overall budget allocated to ICT has:	%
Increased	54%
Remained the same	29%
Reduced	17%

Innovation

Innovation supports parliaments in becoming more efficient and effective and helps them to build resilience. As highlighted in the 2020 and 2022 reports in this series, the COVID-19 pandemic was a catalyst for parliamentary innovation. In 2022, 84% of parliaments surveyed said that they were more innovative than before the pandemic. This led to increased openness to new digital solutions and higher levels of trust internally.

This trend is reflected in the approach to innovation within parliaments – a question first asked for the 2020 report. Since 2020, the share of parliaments with a formal innovation strategy has increased from 26% to 34%, while the share using informal innovation methods has risen from 59% to 66%. The only fall has been in the percentage of parliaments with a working group or committee supporting innovation, which has dropped from 61% to 42%. There is no obvious explanation for this trend other than the possibility that, as innovation becomes a more regular feature of parliamentary work, the role is gradually being internalized and formalized.

The 2022 report noted that connecting and collaborating with other parliaments had been transformative. Certainly, the pandemic highlighted the importance of being able to share knowledge with, and seek answers from, similar people and organizations. Indications from within the CIP network are that the tide of pandemic-inspired innovation has subsided, with parliaments looking to embed change and move forward in a more measured, managed and strategic way. However, the fact that 82% of parliaments surveyed for this report identified "learning from other parliaments" as part of their innovation strategy shows that, even in more normal operating times, collaboration is a vital source of knowledge and inspiration for capacity-building. As parliaments begin their journey into new technologies built around AI, this practice is poised to become even more important.

Figure 16. Innovative practices within parliaments
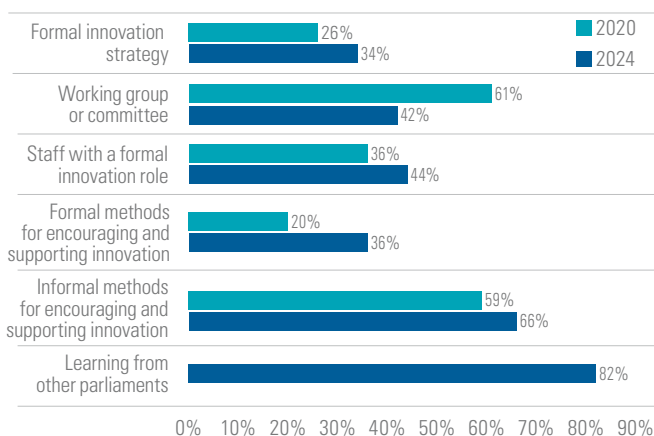
The survey asked parliaments to share any new or innovative practices in a range of areas. The themes that emerge, shown in Table 9 below, highlight the direction of technology growth for modern parliaments, with a focus on digital transformation, new ways of working, better public engagement and the adoption of AI.

Table 9.   Emerging themes in innovative practice

Digital transformation and modernization	Leveraging technology and innovation to modernize, improve efficiency, and make parliament more effective
	Implementing new digital platforms, including paperless parliaments, online public engagement and AI integration
	Introducing AI and machine learning for various purposes, such as transcription, data analysis and decision-making support
	Transitioning from traditional to digital parliamentary processes
Governance and infrastructure	Strengthening the focus on ICT governance, with a particular emphasis on cybersecurity and data privacy policies
	Establishing comprehensive data governance policies and frameworks
	Implementing a standardized approach to ICT service sourcing and classification
	Developing enterprise architecture principles
Data governance and management	Taking a holistic approach to data governance
	Promoting data transparency and security
	Utilizing AI tools and services for data management and analysis
Agile methods and management practices	Adopting agile methodologies for project management and organizational change
	Continuously developing digital skills
	Involving stakeholders in transformation processes
	Implementing agile work processes for product development and collaboration
Public engagement	Using digital platforms for public engagement and communication
	Developing effective communication policies and strategies
	Integrating technology to enhance parliamentary functions, including oversight and law-making
International collaboration and support	Collaborating with other parliaments, public institutions and standardization bodies
	Building capacity with support from external organizations, such as the IPU and the United Nations Development Programme

Barriers to digital transformation

Modernizing parliaments through the use of digital tools is about technology-supported culture and process change. However, as parliaments take a transformative approach to parliamentary modernization, the way they deploy and manage ICT is likely to change too. New systems and new ways of working require a reimagining of ICT culture and practices in parliament, as well as of the institution's broader working practices.

The barriers to more effective use of ICT within parliaments were highlighted in previous reports (2016, 2018 and 2020). These repeatedly included a lack of staff capacity, as well as inadequate funding – the latter being an issue for many parliaments regardless of country income level. Previous reports also noted how persistent strategic and systemic challenges were impacting on ICT delivery and deployment.

The survey for this report dug deeper into the barriers to effective digital transformation. Once again, the results highlight the ongoing challenges of insufficient funding (59%) and a lack of experienced staff (48%). On a more positive note, it appears that high staff turnover is significantly less of an issue (13%), suggesting that, in many parliaments, if staff can be recruited, they can be retained.

Considering the earlier discussion on the importance of leadership and high-level governance, it is concerning to note that more than one third of parliaments (37%) reported that a lack of understanding of the potential benefits of digital transformation was acting as a barrier to modernization, while 44% of parliaments cited their culture as a barrier. One parliament noted in their survey response that there was "resistance to change due to traditional procedures", while another pointed to the need to find a "balance between innovation and respecting heritage [and] tradition".

Table 10. Barriers to digital transformation

Barrier	%
Insufficient funding for digital transformation	59%
Lack of experienced staff	48%
Culture within parliament	44%
Lack of understanding of the potential benefits of digital transformation	37%
Organizational structure of parliament	25%
Lack of necessary national infrastructure (beyond parliament)	21%
High staff turnover	13%
No demand for more digital services	7%
Other	13%
No barriers	11%

Just over 1 in 10 parliaments (11%) stated that they faced no barriers to digital transformation. This figure should be treated with caution, since no explanation was given for these answers; it could be because the parliament in question has all the resources and leadership it requires but, equally, the institution might lack the ambition to modernize and therefore face none of the barriers familiar to other parliaments.

Infrastructure

The previous section looked at the governance and strategic delivery of ICT within parliaments, at how this is resourced and funded, and at approaches to innovation and modernization. This section focuses on the more detailed aspects of the digital parliament, including how parliaments deliver and manage their ICT operational capabilities, and ICT systems and infrastructure, including ICT use in libraries. It begins with a consideration of ICT staffing.

Table 11. Digital Maturity Index: top 15 ranking of parliaments in infrastructure

Country	Digital Maturity Index	Digital governance, strategy & management	Infrastructure	Parliamentary systems	Supporting users in parliament	Digital content & publishing	Public engagement
Canada – House of Commons	7	5	10	9	8	8	8
European Parliament	10	10	10	10	3	8	6
Finland	10	6	10	9	7	10	9
Ireland	10	9	10	6	9	9	9
Israel	10	6	10	9	9	10	4
Slovakia	10	10	10	9	8	10	9
South Africa	8	9	10	8	10	4	5
Australia	8	7	9	8	8	6	7
Austria	9	7	9	6	10	8	10
Brazil – Federal Senate	10	8	9	10	10	9	10
Chile – Senate	8	9	9	7	4	8	8
Estonia	8	5	9	10	7	9	5
Italy – Senate	9	6	9	8	9	9	6
Morocco	7	6	9	8	1	5	8
Spain – Senate	8	4	9	4	4	7	4

Staffing

The highest number of FTE ICT staff employed in any parliament is 575. However, this is an outlier, as only 4% of parliaments employ more than 400 FTE staff in ICT roles. The majority (57%) employ between 1 and 24 FTE staff, with the median number being 24. Contractors also play a major role in supporting parliamentary ICT, with 20% of parliaments having more staff on contract than permanently employed. One of the larger parliaments employs around 1,200 contract staff, which equates to 12 contractors for every 5 employees.

The typical ratio of FTE ICT staff, including contractors, to MPs is approximately 12:100.

Figure 17. Ranges of FTE ICT staff employed in parliaments

Employed by parliament
Employed by government
ICT contractors
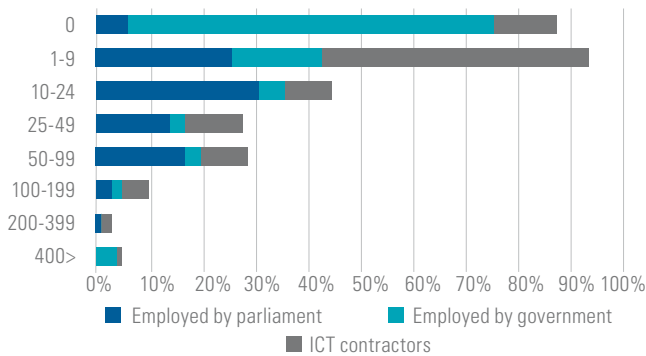
Just over half of parliaments (52%) have ICT staff who are employed by the government but assigned to parliament, in either a full-time or a short-term capacity. Four per cent of parliaments employ contractors but have no full-time ICT staff of their own. However, of these, most use ICT staff employed by the government and only 1% of respondents reported having no permanent ICT staff and relying instead on contractors. Fifty-three per cent of parliaments have had one or more intern within their ICT services in the past 12 months. The median number of ICT interns across parliaments was 3, with the most being 79.

Figure 18. FTE ICT staff, range and median

FTE ICT staff employed by parliament
Median FTE
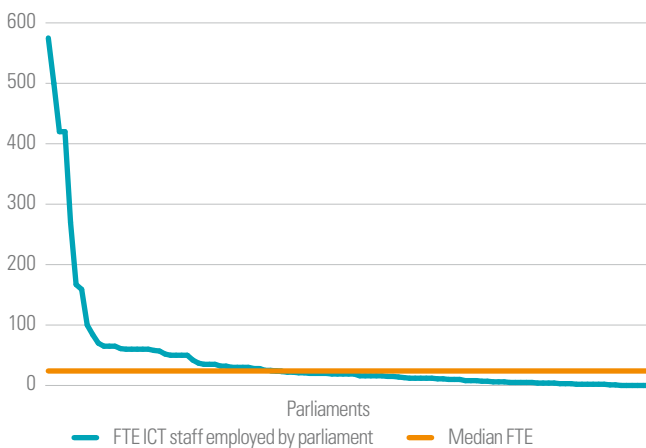
All parliaments surveyed reported having some form of ICT infrastructure function. Almost all said they had the following functions: user training and support (98%), data management (97%) and web services (97%). In terms of the allocation of internal versus external (contracted) resources for different parliamentary ICT activities, there is a clear preference towards using internal staff. Table 12 shows that 96% of parliaments use internal staff for infrastructure management and only 37% use external contractors for this purpose. Conversely, in software development, 66% of parliaments use external contractors and 65% internal staff. The activities where the fewest parliaments reported using external contractors were project management (25%), business analysis (23%), and data management (22%).

Table 12. Use of internal and external ICT staff by functional area

	Internal	External	Not provided
Broadcast services	63%	43%	12%
Business analysis and requirements management	72%	23%	19%
Cloud services	53%	46%	20%
Cybersecurity	83%	40%	6%
Data management	90%	22%	3%
ICT infrastructure management	96%	37%	0%
Management of social media tools	89%	10%	5%
Open data repositories/ portal	73%	22%	18%
Project management	84%	25%	7%
Software development	65%	66%	9%
Testing	81%	36%	5%
User training and support	89%	49%	2%
Web services	89%	48%	3%

Electrical power supply

All parliaments that responded to the survey reported having a reliable, 24/7 electrical power supply. However, this does not necessarily mean that electricity is permanently available through the national grid. In fact, 10% of parliaments reported that they did not draw their power from a national electricity network, which was largely consistent with previous surveys.

In 2024, parliaments were asked about alternative sources of electricity they have regular access to in order to accommodate rolling blackouts or other power outages across the network. Seventy per cent of parliaments said they had some form of uninterruptible power supply (UPS), and 72% reported having diesel generators on the parliamentary premises to manage load shedding and rolling blackouts, whether these were regular, planned or occasional.

Table 13. Reliability of electrical power supply and sources of regular backup

Does parliament have a reliable, 24/7 electrical power supply?		100%
What sources of electrical power does parliament use on a regular basis?	National grid	90%
	UPS to manage load shedding/rolling blackouts	70%
	Diesel generators to manage load shedding/ rolling blackouts	72%
	Parliament generates some of its own power (e.g. from solar or wind)	13%

Additionally, the survey data reveals that 13% of parliaments now generate some of their own electricity from sources such as solar or wind. However, 67% of those parliaments generating their own power are located in high-income countries, while there are none who do so in low-income countries.

Internet connectivity

As cloud services and remote working increase, parliament's internet connection becomes a critical part of its digital infrastructure. The reliability and performance of this connection can affect the ability of MPs, staff and systems to function properly. All respondents reported having an internet connection within parliament, as has been the case since 2018.

Ninety-four per cent of respondents agreed that the reliability of their internet connection was at least adequate (similar to the 92% who reported this in 2020), with 37% finding it more than adequate. Regarding speed, 92% reported that their internet connection was at least adequate, while 36% found it more than adequate for their needs.

However, 6% of parliaments reported that their internet connection was not reliable enough, and 8% said it was not fast enough. The members of this small group of parliaments were most likely to be in sub-Saharan Africa or the Pacific region.

Figure 19. Internet speed and reliability
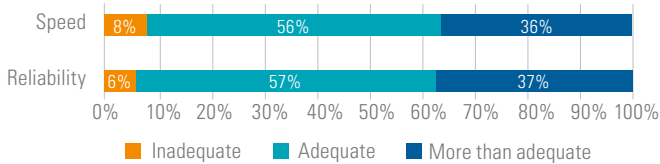
As seen in the 2020 report, Wi-Fi within the parliamentary estate is now a standard service. The survey for this report found that 96% of parliaments provided Wi-Fi access to members, which was similar to the 97% figure reported in 2020 and 2018. Overall, 88% of parliaments provide Wi-Fi access to staff.

Hosting infrastructure

Almost 9 in 10 parliaments (87%) have an on-premises network, and an additional 10% plan to implement one within the next three years. In order to support flexible and remote working, which has become increasingly common during and since the pandemic, 69% of parliaments provide external access to their network through a VPN and another 21% intend to do so.

The use of cloud storage for documents has increased consistently since 2016 as parliaments have moved from local-only solutions to cloud-based alternatives. The increase in the adoption rate appears to have been accelerated by the COVID-19 pandemic. In 2020, the share of parliaments reporting the use of cloud storage stood at 36%, an increase of 86% since 2016. In 2024, this figure now stands at 68% of parliaments, a further increase of 74% over the past four years. Although the evolving nature of cloud adoption can make usage comparisons across issues in this series challenging, it is clear that adoption has increased significantly.

The use of cloud technologies has matured within parliamentary settings, and they are now being used for applications as well as documents. In the survey for this 2024 report, 39% of parliaments said that applications and documents were hosted in a private cloud, 38% reported using public cloud services (such as Amazon Web Services), and 29% mentioned being part of a wider government cloud. Some parliaments also reported utilizing multiple cloud providers.

Figure 20. Where parliamentary applications and data are hosted
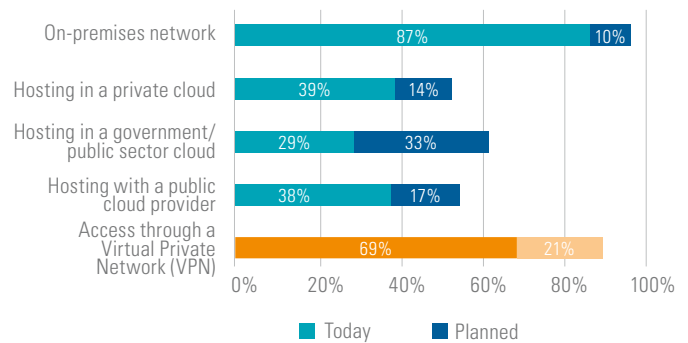
The average number of application types hosted in the cloud was four across all respondents. However, this rose to 5.5 for parliaments in high-income countries, and fell to 2.8 for those in low-income countries.

Breaking down this infrastructure into where different types of applications are hosted paints a more nuanced picture in which many parliaments are using both internal hosting and cloud services. The survey for this report found the highest levels of on-premises hosting for the following application types: databases (88%), document management (83%), publishing for print (81%), office tools (77%) and content management (71%). Conversely, cloud hosting proved to be more popular for video conferencing (58%, compared to 54% on-premises), collaboration tools (47%) and email (42%), although on-premises hosting of data and applications was still more common.

The lowest rates of cloud hosting were reported for publishing for print (6%) and electronic resource management (22%), indicating a preference for on-premises deployment of these applications. For e-learning, there were similar percentages for on-premises (31%) and cloud (33%).

These findings suggest that, while cloud adoption is gaining traction, many parliaments still prefer on-premises hosting for critical applications like databases, content management, document management and publishing. However, cloud hosting is more prevalent for collaboration tools, video conferencing and email, which may benefit from the scalability and accessibility offered by cloud platforms.

Figure 21. Application hosting by type (%)

	In-cloud	On-premises
Collaboration tools	47	54
Content management	34	71
Databases	25	88
Document management	25	83
E-learning	31	33
Electronic resource management	22	60
Email	42	62
Library catalogue	31	61
Office tools	42	77
Publishing (print)	6	81
Publishing (web)	37	61
Video conferencing	54	58

Table 14. Cybersecurity measures adopted by parliaments

	Yes	Planning
Parliament has adopted or follows national cybersecurity standards or guidelines	70%	21%
Cybersecurity is the responsibility of a government agency or other public body	41%	5%
Parliament has a cybersecurity strategy	53%	26%
There is a formally identified internal structure responsible for cybersecurity	55%	21%

Service-level agreements and support

Effective support for infrastructure and systems is crucial for parliamentary operations. It is considered good practice for organizations to have service-level agreements (SLAs) in place with suppliers, including internal suppliers. SLAs ensure that expectations around ICT support are agreed upon and made explicit, promoting mutual understanding and allowing performance to be measured.

In the survey, almost 9 in 10 parliaments (89%) reported having at least some SLAs in place with external suppliers, while 46% had SLAs with all their major suppliers. These figures have remained consistent since 2016. In 2020, 21% of respondents said they had an SLA in place between internal departments (the same as in 2018, up from 13% in 2016). In the 2024 survey, this figure stood at 19%.

Cybersecurity

Cybersecurity is a prominent issue for parliaments and, as discussed elsewhere in this report, a high priority for user training. Seventy per cent of parliaments have adopted or follow national cybersecurity standards or guidelines, and 21% are planning to adopt such standards or guidelines in the future. In 41% of cases, cybersecurity is the responsibility of a government agency or other public body. Fifty-three per cent of parliaments have their own internal cybersecurity strategy in place, with a further 26% planning to develop one. More than half of parliaments (55%) have a formally identified internal structure responsible for cybersecurity, and a further 21% are planning to establish such a structure.

Overall, the figures shown in Table 14 suggest that a significant portion of parliaments have taken steps to address cybersecurity concerns by adopting standards, assigning responsibilities, developing strategies and establishing internal structures. However, there is still room for improvement, as a notable percentage of parliaments have not implemented such measures. Yet the number of parliaments that are planning various cybersecurity measures is significant, suggesting that this is a rapidly evolving area and that further improvements are likely in the future.

Library services

While most parliamentary libraries now have online catalogues (72%), and automated systems for cataloguing acquisitions (69%) and archiving digital resources (61%), the level of automation for managing other digital resources varies considerably. About half of the parliaments surveyed said they had implemented systems for common library functions such as acquiring and claiming serials (53%), handling e-resource management capabilities (52%), operating circulation systems (51%), and acquiring monographs (49%). However, automation is lagging behind in areas such as digital rights management (DRM), with only 34% of parliaments currently having an automated DRM system in place.

The data shows that many libraries are actively working to increase their automation capabilities, with 22% reportedly in the planning stages for online catalogues and circulation systems, and 26% planning for DRM. As libraries continue enhancing their technological infrastructure, we can expect to see further adoption of automated systems to streamline operations and provide seamless access to digital collections and services.

As parliamentary libraries increasingly rely on digital resources and remote access, they are leveraging a variety of online tools and services to meet user needs. An overwhelming 81% of libraries subscribe to online journals and databases, providing access to collections of digital content. Library websites (64%) and intranets (73%) available specifically to members serve as central access points for resources and services. Many libraries (60%) also offer convenient channels for users to submit requests and ask questions electronically. Half of the libraries surveyed said they provided an alert service to notify users of new acquisitions, research updates or other relevant information matching their interests. These percentages suggest that parliamentary libraries are embracing online tools as a way to support their user communities, facilitating access to resources and enabling two-way communication and personalized services.

Figure 22. Online tools for library users

Subscriptions to online journals and databases	81%
An intranet available to members	73%
A library website	64%
Electronic receipt of requests and questions from members	60%
Alerting services	50%
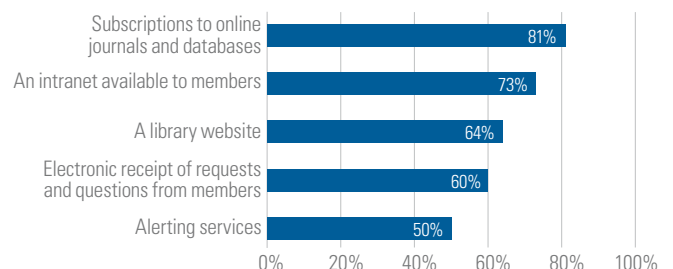
In terms of behind-the-scenes technologies, most parliamentary libraries (87%) have implemented a digital repository for the preservation of, and access to, parliamentary documents. Over half of parliamentary libraries (57%) leverage discovery tools to facilitate research and federated searching capabilities across their collections. These tools help improve the user experience by allowing members to simultaneously search across multiple data sources such as catalogues, databases, archives and digital repositories, returning more comprehensive results through a single interface.

Nearly half of parliamentary libraries (48%) use linked data technologies to improve access to, and integration of, data. Linked data provides a way to semantically connect and interlink different data sources, enhancing discoverability and context around parliamentary information and proceedings. Forty-six per cent of parliamentary libraries provide open data, making certain data sets publicly available in open, non-proprietary formats. This promotes transparency by allowing free access to, and reuse of, this parliamentary data by citizens, researchers and other interested parties.

Although cloud storage is less widely used in parliamentary libraries than in parliaments overall, one third of libraries (36%) reported using this technology. While a relatively small 13% of libraries currently use AI-based research and information-gathering tools, this number is likely to grow as AI capabilities advance further and as more libraries explore ways to enhance operations and services through AI-enabled applications.

Figure 23. Behind-the-scenes library technologies
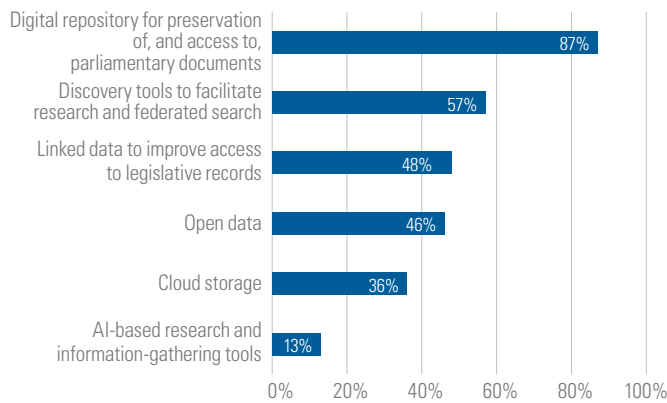

Overall, the data shows that parliamentary libraries focus on core digital services such as repositories, and discovery and access tools. However, many are also adopting more advanced technologies like linked data to improve findability and context. Emerging areas like AI and open data indicate potential future directions as libraries continually evolve their technological capabilities.

Parliamentary systems

This section focuses on parliamentary systems and examines the implementation of different IT systems and digital tools that support key parliamentary functions. It provides a comprehensive overview of ongoing trends and patterns in the digitization of parliaments, painting a picture of parliaments embracing the "e-Parliament" model, which was defined as follows in the *World e-Parliament Report 2018*:

An e-Parliament places technologies, knowledge and standards at the heart of its business processes, and embodies the values of collaboration, inclusiveness, participation and openness to the people.[12]

By analysing data from 2024 and comparing it to previous years, this section highlights progress made, persistent disparities, and the emerging technologies that have the potential to further transform parliamentary processes.

Table 15. Digital Maturity Index: top 15 ranking of parliaments in parliamentary systems

Country	Digital Maturity Index	Digital governance, strategy & management	Infrastructure	Parliamentary systems	Supporting users in parliament	Digital content & publishing	Public engagement
Bahrain	9	8	6	10	7	8	9
Brazil – Chamber of Deputies	10	9	7	10	4	10	9
Brazil – Federal Senate	10	8	9	10	10	9	10
Estonia	8	5	9	10	7	9	5
European Parliament	10	10	10	10	3	8	6
France – Senate	9	5	8	10	6	8	10
Paraguay – Chamber of Deputies	9	6	7	10	7	7	10
Poland – Sejm	8	2	7	10	7	9	5
Portugal	6	1	7	10	8	5	3
Romania	6	1	5	10	1	6	4
Slovenia	9	8	5	10	4	10	8
Canada – House of Commons	7	5	10	9	8	8	8
Finland	10	6	10	9	7	10	9
Hungary	7	5	8	9	7	8	1
Israel	10	6	10	9	9	10	4

Parliamentary functions supported through ICT

The data from this and earlier reports in the series presents a comprehensive overview of the adoption of various IT systems and digital tools supporting core parliamentary functions. The data from the 2024 survey demonstrates that the digitization of parliamentary functions continues, revealing limited change in terms of the overall trend but highlighting that more of what parliaments do is now digital. Most of the variations between the 2024 data and previous reports in the series can likely be explained by steady growth and a changing sample.

Starting with plenary functions, a significant number of parliaments have implemented systems for maintaining a database of laws passed (73%), amendment status/tracking (55%), bill status/tracking (63%), bill drafting (51%) and amendment drafting (51%). These figures have remained relatively stable compared to previous years, suggesting that the use of IT systems for essential legislative processes is well established.

A substantial majority of parliaments have systems in place for plenary calendars and schedules (75%), plenary speeches and debates (72%), minutes of plenary sessions (71%), and plenary voting (67%). Adoption has also been widespread for committee-related functions such as calendars and schedules (69%), reports (63%) and minutes of meetings (57%), albeit at slightly lower levels than for plenary functions.

One notable area of growth has been the use of IT systems for managing questions to the government, with 58% of parliaments reporting such capabilities in 2024, up from 46% in 2020 and 50% in 2016.

Turning to library and archival functions, 74% of parliaments have implemented systems for digital archiving of parliamentary documents, and 61% for managing library resources. These figures have remained relatively stable or shown slight increases compared to previous years, reflecting the importance of preserving and providing access to parliamentary information.

On the subject of financial transparency, a notable 41% of parliaments have systems in place for the financial disclosure of members' interests, a slight increase from previous years. There are systems for managing members' financial allocations (such as salaries and budgets) in 63% of parliaments. The adoption of systems for financial management (82%) and human resources management (77%) has remained consistently high across the years.

Table 16. Digitization of functional areas, 2008–2024

	2024	2020	2018	2016	2008[13]
Plenary functions					
Amendment drafting	51%	46%	46%	45%	-
Amendment status/tracking	55%	55%	55%	55%	64%
Analysis of budget proposed by the government	30%	-	-	-	-
Bill drafting	51%	50%	44%	42%	-
Bill status/tracking	63%	63%	65%	64%	-
Database of laws passed by parliament	73%	75%	69%	74%	-
Minutes of plenary sessions	71%	69%	84%	79%	70%
Plenary calendars and schedule	75%	73%	75%	78%	59%
Plenary speeches and debates	72%	73%	75%	78%	70%
Plenary voting	67%	66%	69%	67%	65%
Questions to the government	58%	46%	58%	50%	52%
Committee functions					
Committee calendars and schedules	69%	68%	70%	70%	-
Committee reports	63%	68%	71%	72%	64%
Committee voting	27%	21%	30%	-	
Minutes of committee meetings	57%	60%	67%	68%	63%
Administration and support functions					
Digital archive of parliamentary documents	74%	79%	71%	68%	-
Financial disclosure of members' interests	41%	36%	36%	38%	-
Financial management	82%	81%	78%	76%	-
Human resources management	77%	80%	78%	77%	70%
Management of library resources	61%	65%	71%	59%	-
Management of members' financial allocations	63%	-	-	-	-
Online library catalogue	69%	65%	65%	57%	-

There are differences in technology adoption according to region and by country income level. The average number of functional areas supported by IT systems (from the 22 areas listed in the survey) is 13. However, this rises to 17 for parliaments in Europe and 16 in the Americas, but drops dramatically to 10 for parliaments in sub-Saharan Africa. The figure for the Pacific region is even lower, at nine. Moreover, the inclusion of Australia and New Zealand – two well-resourced parliaments that have made significant investments in ICT – skews this data, meaning that the situation in the region is considerably worse in reality: without them, the regional average is only 4 of the 22 functional areas covered by IT systems. Similar differences arise for parliaments in low-income countries, with an average of 10 functional areas supported by ICT, versus 17 for those in high-income countries. Lower-middle-income countries fare worse still, with an average of nine functional areas supported.

This report shows steady progress and widespread adoption of IT systems across various parliamentary functions. The consistent or increasing adoption rates across most functions underscore a recognition of the value these systems bring in enhancing efficiency, transparency and accessibility within parliamentary operations. As technology continues to evolve, it is reasonable to expect further advancements and integration of IT systems to support the ever-changing needs of modern parliaments. The following sections of this report will look at the use of digital tools in specific parliamentary functions.

13 The wording for this question was slightly different in the 2008 survey and was further revised in 2024.

Document management

Many parliaments are using digital tools in the legislative process. This ranges from "office" software to fully functioning legislative management systems (LMS), which help parliaments manage, track and automate legislative activities. The primary purpose of an LMS is to facilitate the smooth functioning of parliamentary operations, enhance transparency and improve the accessibility of information for MPs, staff and the public.

Fifty-seven per cent of survey respondents reported having a system for managing the texts of bills in digital format as they move through the legislative process, an increase from 49% in 2020, and from 55% in 2018.

Table 17. Document management system functionality

| Function	%
Workflow capability	74%
Exchanges data with other systems outside the parliament	54%
Can handle all possible versions of a bill	77%
Can handle committee amendments	69%
Can handle plenary amendments	75%
Shows the changes in a bill that the amendment would make	52%
Includes all actions taken by parliament on a bill	75%

Of those parliaments with a system for managing bills, 77% have a system that can handle all versions of a bill throughout its lifecycle. Complementing this, 75% have a system that can incorporate amendments introduced during plenary sessions and an equal share have a system that can maintain comprehensive records of all parliamentary actions taken on a bill. These high adoption rates underscore the importance of version control, amendment management and audit trails in modern bill management systems. Moreover, 74% of parliaments include workflow capabilities within their systems, enabling efficient task coordination and process oversight. The ability to handle committee amendments is widely adopted, with 69% of parliamentshaving a system that supports this functionality, further emphasizing the importance of seamlessly integrating changes from various stages of the legislative process.

While core bill management features are well represented, there are opportunities for growth in specific areas. Only 54% of parliaments currently have systems that can exchange data with external systems. This limited integration could hinder seamless information-sharing and collaboration with other stakeholders.

Notably, the ability to visually depict how an amendment would modify a bill's text is present in just 52% of parliamentary systems. Enhancing this feature could significantly improve transparency and comprehension, allowing stakeholders to more easily understand the implications of proposed changes.

Overall, parliaments have made substantial progress in implementing robust bill management systems with comprehensive functionality. Figure 24, however, is a stark reminder that the modern digital parliament, which relies on complex digital tools to support legislative functions, is not a universal model, and is primarily found in parliaments in higher-income countries. Conversely, parliaments in low- and lower-middle-income countries are far less likely to have legislative management software in place: 75% of parliaments in low-income countries and 76% of those in lower-middle-income countries do not. By contrast, 83% of parliaments in high-income countries do have such a system in place.

Figure 24. Distribution of bill management systems by country income level
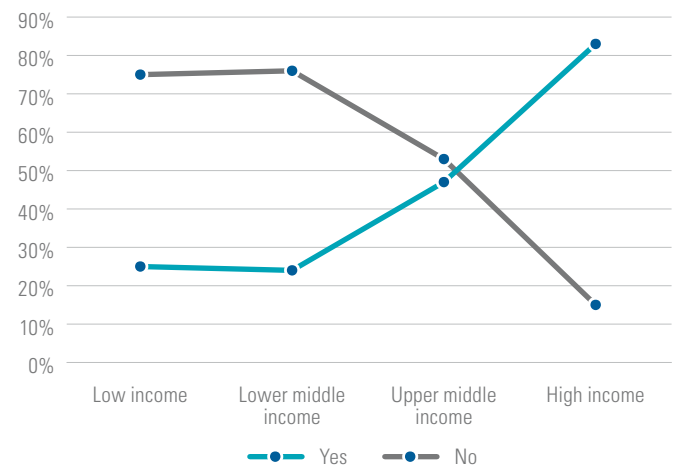
Voting systems

There has been little change since 2020 in terms of the voting systems used by parliaments. The notable exception is that remote voting in the plenary is now possible in 20% of parliaments, up from 11% in 2020. This is likely to be a legacy of the COVID-19 pandemic, when many parliaments introduced remote voting. The 2024 data shows a nominal drop from the 22% of parliaments that used remote voting applications in 2022.

Just over half of parliaments (51%) have manual voting in the plenary. This represents a continued decline in manual voting over the years, from 78% in 2018 and from 58% in 2020. A further 19% of parliaments have manual voting in the plenary but with an electronic tally of votes. Manual voting is more prevalent in committees, with 80% of respondents using this approach.

Beyond manual voting, 45% of parliaments use voting buttons at assigned seats but only 10% use a dedicated voting station in (or close to) the chamber. Many parliaments have multiple methods of voting, and the method used can depend on the nature of the vote taking place.

Figure 25. Voting methods

Figure 26. Recording of the official verbatim report
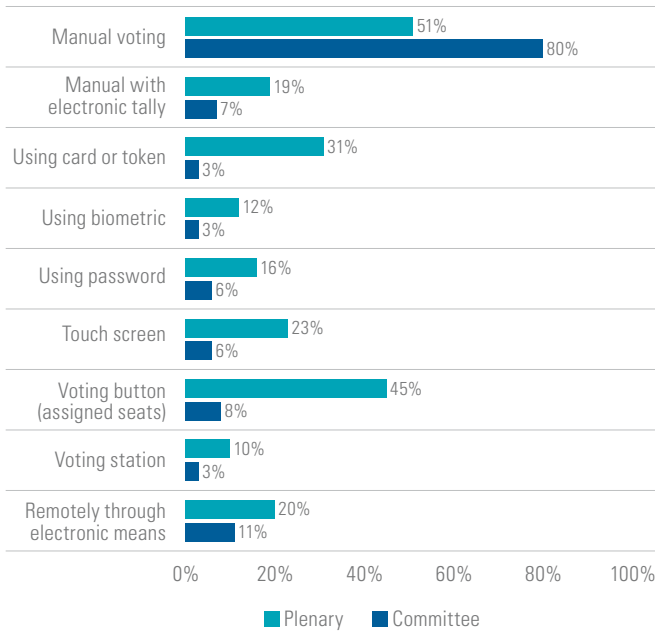
Official verbatim report

The data in this report series provides insights into the methods used for recording the official verbatim report of parliamentary proceedings across different years. In 2024, the most widely reported method was recording in digital format using a PC, with 62% of parliaments employing this approach. This method has remained consistently popular over the years, with slight fluctuations ranging from 57% in 2010 to 71% in 2018.

The share of parliaments reporting using speech recognition technology for recording in digital format stood at 31% in 2024, marking a significant increase from previous years (up from 25% in 2020, 14% in 2018 and 8% in 2010). This upward trend is likely driven by advancements in the accuracy and efficiency of speech recognition systems, as well as by the greater availability of such tools.

Conversely, the more traditional method of recording by hand and transcribing into digital format has fallen steadily over the years. In 2024, only 26% of parliaments said they employed this method, a substantial decrease from 47% in 2010. This clear decline in manual recording methods indicates a shift towards more streamlined and automated processes within parliamentary reporting procedures.

The use of stenographic machines has remained relatively stable, with 14% of parliaments reporting using this method in 2024, a slight increase from 13% in 2020 but consistent with 2016 and 2012, when the adoption rate was 15%.

Overall, the data highlights a trend towards the adoption of digital recording methods, especially the use of PCs and, increasingly, speech recognition technology. The growing popularity of speech recognition technology is noteworthy, reflecting continuous advancements in this field and the potential benefits it offers in terms of efficiency. This trend is likely to accelerate in the future, as advances in AI further enhance the capabilities and accuracy of speech recognition tools.
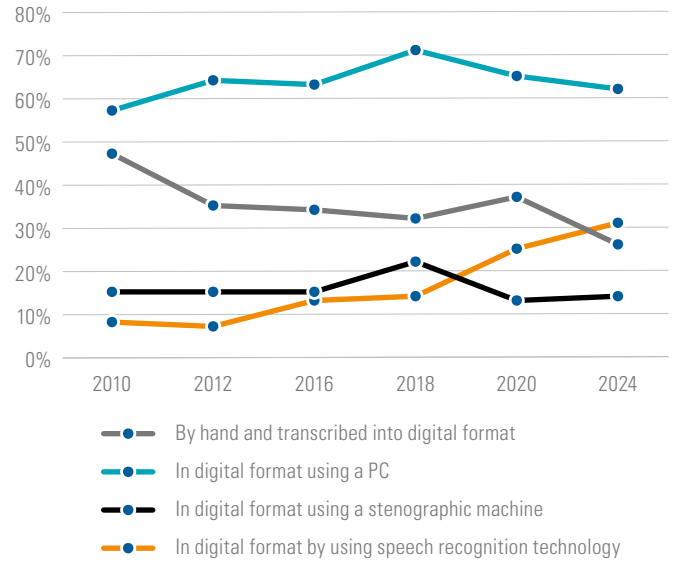
Audio/visual systems

Live-streaming (or near-live-streaming) of parliamentary business from the plenary chamber occurs in 87% of parliaments, and 72% of parliaments automatically record plenary proceedings, with a further 9% considering this.

Most parliaments now use large-screen displays in their plenary chamber (80%) and/or committee rooms (78%). These screens are primarily used to display information during parliamentary sessions, including text (69%), graphics (64%) and video streaming (64%) in the plenary. However, the use of large screens is slightly less common in committee rooms, with video streaming available in only 55% of parliaments. The exception is videoconferencing, which is available for committees in 67% of parliaments but in the plenary in only 48% of cases. Access to the plenary chamber is limited to members, while committees often take evidence from external witnesses.

Table 18. Use of large-screen displays in plenary and committees

	Plenary	Committee
Video streaming	64%	55%
Text	69%	66%
Graphics	64%	62%
Still pictures	57%	54%
Videoconferencing	48%	67%

As previous reports have discussed, videoconferencing provides a reliable way to bring a greater diversity of witnesses in front of committees, making them more accessible to the public. Videoconferencing is proportionally more likely to be used in Europe (33% of European respondents said they used it in their plenary and 55% in committees). It is least likely to be used in Asia (5% in plenaries, 11% in committees), in the Pacific region (7% in plenaries) and in the Middle East and North Africa (9% in committees).

Table 19. Use of videoconferencing by region

|	Plenary	Committee
Americas	20%	22%
Asia	5%	11%
Europe	33%	55%
Middle East and North Africa	11%	9%
Pacific	7%	13%
Sub-Saharan Africa	24%	31%

Archiving and preservation

The preservation of parliamentary documentation in digital formats is a critical aspect of modern governance, ensuring the longevity and accessibility of crucial legislative records. Fifty-two per cent of respondents in the 2024 survey said they had a formal digital preservation policy in place, an increase from 45% in 2020 and from 33% in 2018. An additional 30% of parliaments are in the planning stages of developing such a policy, showing a potential rise in the adoption of digital preservation strategies in the future.

Moving on to the implementation of digital archives, the data reveals a strong emphasis on preserving contemporary parliamentary documentation. A substantial 69% of parliaments have already established digital archives for this purpose, underscoring the importance placed on safeguarding and providing access to current legislative records. An additional 25% of parliaments are planning similar digital archives.

While the preservation of historical parliamentary documentation is equally crucial, the adoption rate lags slightly behind that for contemporary archives, at 56%. One reason for this might be that preserving historical documentation often involves digitizing manual archives. Twenty-one per cent of parliaments said they were planning to introduce digital archives for historical legislative records, but a small-but-not-insignificant percentage of respondents (15%) said they had yet to implement or plan for digital archives of historical documentation. Various factors, such as resource constraints, technological limitations, and the prioritization of contemporary records over historical ones, may contribute to this gap.

Figure 27. Policies and practices for digital archives
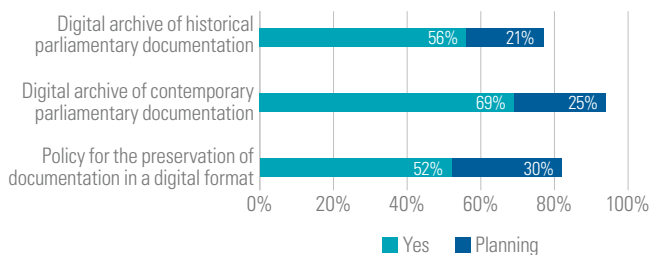
Overall, the data highlights a commitment from parliaments towards the digital preservation of legislative documentation, both contemporary and historical, and emphasizes the importance of an accessible historical record.

Artificial intelligence

The survey data provides insights into the current and planned usage of AI within various internal parliamentary processes. While AI adoption in this area is still in its early stages, the data reveals a growing interest in leveraging this transformative technology across multiple functional areas, with more parliaments planning to do so. At present, 29% of parliaments are using some form of AI functionality, an increase from 10% in 2020. One key difference here is that these systems are less likely to be considered experimental, as they were in 2020, and are now more likely to be production systems in regular use.

One area where AI has gained notable traction is in transcribing parliamentary proceedings. Currently, 20% of parliaments utilize AI for this purpose. This number is likely to increase as quality and accuracy improve, as discussed elsewhere, and a significant portion of respondents (44%) said that they had plans to implement AI for transcription in the future.

Similarly, AI is being explored for translation, with 10% of parliaments currently using it and an additional 38% planning to do so. This trend highlights a recognition of the technology's capabilities in breaking down language barriers and facilitating effective communication within multilingual parliamentary settings.

Cybersecurity is another domain where AI is supporting parliaments, with 15% of parliaments already using it and 35% planning to do so. As cyber threats continue to evolve, the ability of AI to detect and respond to complex patterns and anomalies could prove invaluable in enhancing cybersecurity measures.

However, the data reveals a notable hesitancy in adopting AI for core legislative functions. Only 3% of parliaments currently use AI for drafting bills and managing amendments, with 27% considering doing so in the future.

Similarly, a mere 3% of parliaments use AI for analysing submissions from citizens, although 27% have plans to explore this in the future. This is one area where AI could prove to be a powerful and transformative tool, allowing parliaments to grow their public consultations and to make sense of large volumes of qualitative data, albeit with appropriate human oversight.

Figure 28. Adoption of AI within parliaments
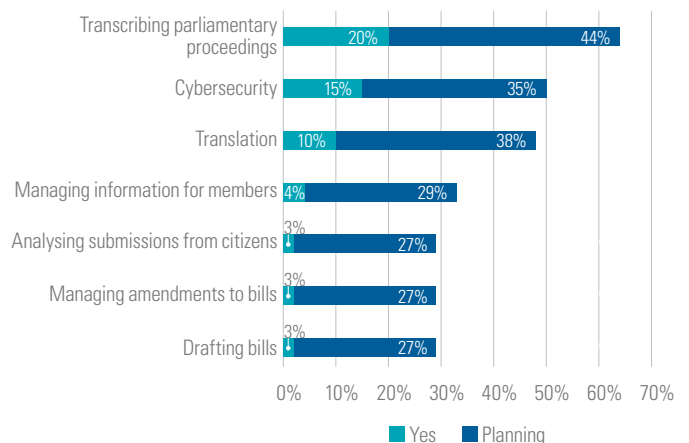
Overall, while current AI adoption rates within parliamentary processes are relatively low, the data shows that a significant percentage of parliaments are actively planning to integrate AI into various functions. Considering the earlier discussion on the rise of AI regulations and guidelines, this trend suggests that parliaments are increasingly recognizing the potential of AI to enhance efficiency, accuracy, and decision-making capabilities within the parliamentary ecosystem. However, concerns over the potential negative consequences and risks associated with this technology are slowing down adoption. As AI technologies continue to mature and gain trust, it is reasonable to expect that future reports will reflect a steady increase in adoption rates across various parliamentary operations.

Supporting users in parliament

This section examines the current state of ICT support and services provided to MPs and parliamentary staff. It delves into the provision of hardware, software and user support services, highlighting the differences between parliaments in high-income and low-income countries. It also explores the training and development priorities for both members and ICT staff, with a particular focus on the critical importance of cybersecurity awareness and technical certifications. By analysing these key aspects, the report provides valuable insights into how parliaments are ensuring that MPs and staff are well equipped and suitably trained to navigate the new and evolving technology landscape.

Table 20. Digital Maturity Index: top 15 ranking of parliaments in supporting users in parliament

Country	Digital Maturity Index	Digital governance, strategy & management	Infrastructure	Parliamentary systems	Supporting users in parliament	Digital content & publishing	Public engagement
Austria	9	7	9	6	10	8	10
Brazil – Federal Senate	10	8	9	10	10	9	10
South Africa	8	9	10	8	10	4	5
Suriname	6	8	8	4	10	4	7
Bahrain	6	6	8	7	9	3	4
Canada - House of Commons	10	10	8	6	9	6	6
Cyprus	4	4	4	5	9	4	4
Ethiopia	2	3	3	3	9	3	2
Fiji	7	7	7	5	9	6	7
Ireland	10	9	10	6	9	9	9
Israel	10	6	10	9	9	10	4
Italy – Senate	9	6	9	8	9	9	6
Kazakhstan	6	5	3	3	9	4	8
Republic of Korea	8	8	6	8	9	6	7
Australia	8	7	9	8	8	6	7

Provision of equipment, tools and support

The provision of hardware, applications, and user support services to members is strong across most parliaments. In total, 96% of parliaments provide desktop and/or mobile hardware, and 90% provide at least some applications, including remote meeting tools, office tools and access to legislative management software. Ninety-seven per cent of parliaments surveyed said they offered ICT training and support services to their members, with 10% offering an AI-based chatbot service as part of their user support package.

Most parliaments provide members with desktop or laptop computers but only half provide them with mobile devices. Parliaments in high-income countries are more likely to provide hardware (98%) than those in low-income countries (88%), and are significantly more likely to provide applications (98% versus 75%).

Table 21. Provision of hardware, applications and support services

	%
Hardware	
Desktop or laptop computers	87%
Mobile devices	50%
Software and applications	
Data plans	37%
Remote office tools	59%
Remote meeting tools	68%
Remote voting tools	22%
Digital signature tools	29%
Intranet portal	68%
Legislative document management system	52%
Parliamentary research databases	56%
User support	
AI tools/bots to assist MPs	10%
ICT training	75%
ICT support/help desk	95%

Larger parliaments tend to provide a wider range of equipment and tools than smaller ones. Parliaments in the Americas, Asia, Europe and the Pacific region generally equip members better than those in the Middle East and North Africa and sub-Saharan Africa.

Table 22. Provision of hardware, applications and support services by country income level

Country income level	Hardware	Applications	Support services
All parliaments	*96%*	*90%*	*97%*
High-income	98%	98%	96%
Upper-middle-income	97%	90%	97%
Lower-middle-income	92%	80%	100%
Low-income	88%	75%	88%

Training for members

Three quarters of parliaments (75%) offer some form of training or induction to MPs, and 82% offer this for staff. For the vast majority of parliaments that offer training to their members, the priorities are clear. The top priority, reported by 82% of parliaments, is training in the use of parliamentary systems and applications. This is followed by the 65% of parliaments that consider training in cybersecurity and other related matters to be a priority. Training in social media is a relatively low priority, identified by only 19% of respondents – slightly higher than the 16% of parliaments prioritizing training for members in AI. This latter figure may appear low but, as AI is a rapidly emerging area, it is significant and likely to rise in the future.

Figure 29. Priorities for member training
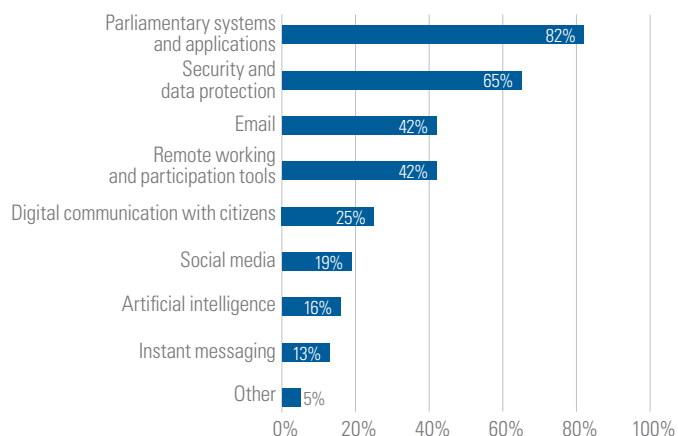
Cybersecurity training

With the rapid proliferation of cyber threats and the growing reliance on technology, parliaments face significant risks if they fail to adequately protect their systems and information. As well as focusing on cybersecurity, parliaments need to ensure that users are made aware of how to keep documents, data and themselves safe in the digital world.

Key themes for training can include the following:

- Understanding the most common cyber threats, such as phishing and malware attacks, and how to recognize them

- Adopting good practices for safe computing, including strong password management, regular software updates and secure data-handling

- Understanding legal requirements, regulations and internal policies for data protection and privacy

- Developing a culture of vigilance and shared responsibility for cyber safety and security across parliament

Almost four in five parliaments (79%) reported having undertaken cybersecurity or related training for staff in the past two years. The number is slightly lower for MPs, with 63% of parliaments saying they had provided this training for members over the same period. Sixty per cent of parliaments have provided training and awareness in cybersecurity, data protection or information protection for both MPs and staff. Only one quarter of parliaments (26%) have provided any training for suppliers or external consultants. This highlights a potential risk area for parliaments should external contractors have access to parliamentary systems and networks without having completed the necessary training.

Training priorities for ICT staff

For ICT staff in parliaments, the top training priority area is security (information security, data protection and cybersecurity): in the survey for this report, 77% of respondents reported that this was a priority. This finding highlights the critical need for ICT staff to be well versed in protecting their organization's data and systems from various threats. The next three most commonly reported priorities were application development and maintenance (42%), AI (43%) and cloud services (41%). Systems administration (35%), document management systems (31%) and website management (25%) were also reported as being priority areas for training, emphasizing the importance of efficient IT infrastructure management, effective digital document management processes, and a strong web presence.

Technologies such as AI and cloud services were given a relatively high priority, suggesting future trends and a recognition of the need to build skills in these areas. Meanwhile, training in more traditional fields like PC support (15%), email management (10%) and help desk (9%) were less of a priority among the parliaments surveyed for this report. Niche areas such as data mining (5%), service design (5%), document standards (3%) and voice communications (2%) were the lowest-ranked training priorities.

Looking at ICT staff training priorities according to parliament's size, security remains the top priority across the board: for small (60.5%), medium (76.9%) and large (66.7%) parliaments. AI is the second-most important focus area, with 39.5% of small, 43.6% of medium and 44.4% of large parliaments prioritizing it. Cloud services, and application development and maintenance, also rank highly across all size categories.

Breaking down the data by region, security is also the dominant priority in every part of the world: Europe (75%), the Middle East and North Africa (75%), Asia (70%), sub-Saharan Africa (70%), the Americas (68%) and the Pacific region (50%). AI is the second-most important priority across most regions, with a particularly strong emphasis on this area reported by parliaments in Asia (60%) and the Americas (53%). Cloud services, application development and maintenance, and document management systems are also consistently important across all regions.

When considering country income levels, security again emerges as the top priority, with 75% of parliaments in upper-middle-income and low-income countries, and 68% in high-income and lower-middle-income countries, prioritizing this aspect. AI and cloud services follow behind security as the top priorities across all country income groups.

Figure 30. Priorities for ICT staff training
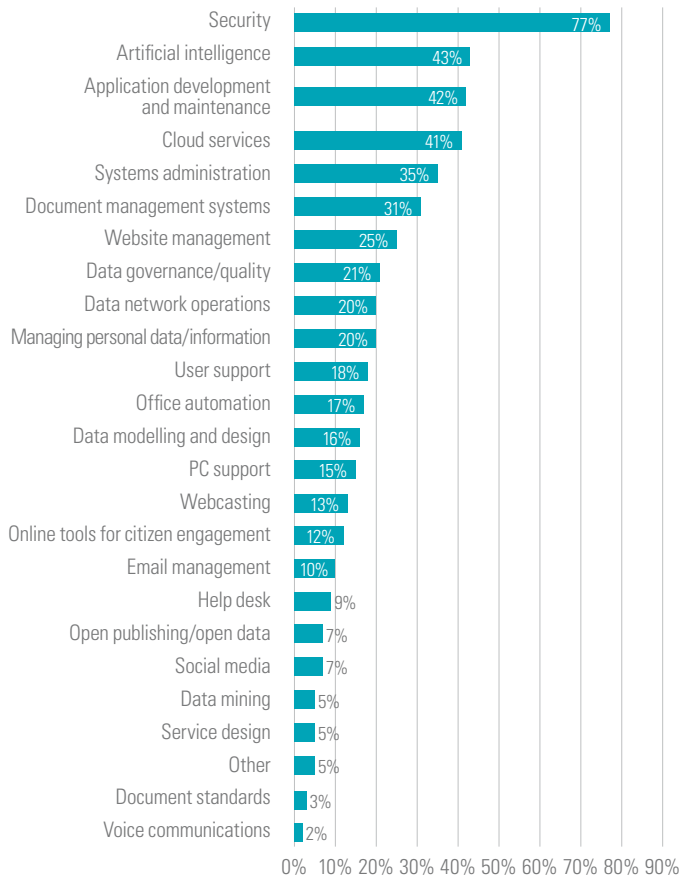
Certification

Technical certifications are valuable for both ICT staff and the parliaments that employ them. They validate knowledge, demonstrate a commitment to professional development, and ensure ICT staff are equipped with the latest knowledge and practices. Overall, 56% of parliaments surveyed said they required or encouraged their technical staff to be certified in at least one area. For those parliaments that do encourage certification, this covers five technical areas on average.

The primary areas for certification are information systems security (74% of parliaments encouraging certification do so in this field), networking (67%) and IT infrastructure (65%). Those areas least likely to have staff with certification are data design and modelling (24%) and cloud practitioner (21%), although a higher share of parliaments (39%) encourage certification in cloud security. While parliaments in high-income countries are more likely to be focused on certification than others (62%), it is required or encouraged in 50% of parliaments in low-income countries but in only 47% of those in upper-middle-income countries. There are also some regional disparities, but these are unusual: Europe has the lowest percentage of parliaments encouraging certification (46%) and Asia by far the highest (75%).

Table 23. Technical areas for professional certification of ICT staff

Technical area	%
Information systems security	74%
Networking	67%
IT infrastructure	65%
Database administration	58%
Software development	53%
Project management	52%
Web development	47%
Cloud security	39%
Data privacy	29%
Data design and modelling	24%
Cloud practitioner	21%
Other	14%

Digital content and publishing

This report series has shown that parliaments have made significant progress in improving the provision and management of digital content. One key area of focus has been accessibility, with many parliaments implementing features such as closed captioning, audio description and user-friendly interfaces to ensure that their digital content is accessible to people with disabilities.

Another trend seen across successive issues of this report series has been an increasing emphasis on open data. Several parliaments have developed or enhanced their open data portals, making parliamentary data more readily usable by external entities. This move towards greater transparency and openness encourages civic engagement and allows for more informed public discourse.

Parliaments are leveraging the power of social media to reach and engage with the public. Platforms like Facebook, YouTube and X (formerly Twitter) are being used to share digital content, live-stream parliamentary sessions, and facilitate two-way communication between parliaments and the public. A few parliaments have even developed mobile applications to provide users with convenient access to digital content and parliamentary information.

There have also been improvements in the quality of live-streamed sessions and other video content, with parliaments investing in better streaming infrastructure and technologies to deliver high-quality, reliable broadcasts.

Behind the scenes, many parliaments have focused on streamlining their document management processes. By implementing or upgrading document management systems, they are now in a position to create, process and store parliamentary documents more efficiently. This not only saves time and resources, but also ensures that important information is properly organized and easily retrievable.

In tandem with improvements to document management processes, several parliaments have also modernized their websites. Redesigned or newly launched websites prioritize user experience, intuitive navigation and easy access to information, aiming to make content more engaging and user-friendly for citizens seeking to understand and interact with their elected representatives.

Some parliaments have taken their digital transformation a step further by incorporating AI and automation technologies. Parliaments have started to employ AI for tasks such as real-time transcription of plenary meetings and for speech sentiment analysis, providing valuable insights and making parliamentary proceedings more accessible. Automation has also been used to streamline certain workflows and to increase efficiency.

As seen elsewhere in this report, there is a growing recognition of the importance of cybersecurity. With sensitive data and systems at stake, parliaments are investing in robust security measures to protect themselves against cyber threats, including implementing advanced security protocols, regularly updating software, and providing cybersecurity training to staff and MPs.

Last but not least, parliaments are increasingly adopting cloud-based solutions for data storage and processing, as well as for service delivery, offering improved reliability, scalability and accessibility.

The parliaments surveyed for this report identified the following as being the most important improvements in the provision of digital content in the past two years:

- Accessibility
- AI and automation
- Cloud technology
- Cybersecurity
- Document management systems
- Improved streaming quality
- Mobile applications
- Modernization of websites
- Open data
- Social media integration

Table 24. Digital Maturity Index: top 15 ranking of parliaments in digital content and publishing

Country	Digital Maturity Index	Digital governance, strategy & management	Infrastructure	Parliamentary systems	Supporting users in parliament	Digital content & publishing	Public engagement
Brazil – Chamber of Deputies	10	9	7	10	4	10	9
Finland	10	6	10	9	7	10	9
Germany - Federal Council	3	2	6	5	4	10	6
Israel	10	6	10	9	9	10	4
Latvia	9	7	8	8	4	10	5
Montenegro	7	2	5	5	2	10	9
Netherlands – House of Representatives	6	6	6	6	6	10	1
Slovakia	10	10	10	9	8	10	9
Slovenia	9	8	5	10	4	10	8
United Kingdom	9	9	9	6	8	10	8
Brazil – Federal Senate	10	8	9	10	10	9	10
Estonia	8	5	9	10	7	9	5
Ireland	10	9	10	6	9	9	9
Italy – Senate	9	6	9	8	9	9	6
Paraguay - Chamber of Deputies	10	9	5	8	3	9	10

Digital content strategy

Just over half of parliaments (55%) have a formal policy to manage the creation, publishing and distribution of digital content. A smaller share (41%) have a specific policy for managing open data publishing. The existence of a policy for managing either digital content or open data publishing is largely predicated on income. Sixty-nine per cent of parliaments in high-income countries reported having a digital content policy, and 50% an open data publishing policy. The respective figures were lower for parliaments in low-income countries (38% in both cases). Meanwhile, the lowest reported figures were for parliaments in lower-middle-income countries, 36% of which said they had a digital content policy and 28% an open data publishing policy.

Figure 31. Digital content and open data publishing policies by country income level
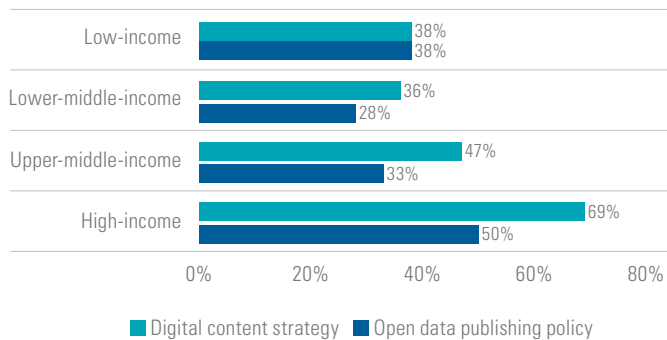
A similar disparity is also seen across regions. Parliaments in the Middle East and North Africa were the most likely to report having a digital content policy (73%), followed by those in Europe (71%), while the figures were much lower for sub-Saharan Africa and the Pacific region (32% and 22% respectively). Parliaments in the Middle East and North Africa were also the most likely to report having an open data publishing policy (64%), followed by those in Europe (51%). Only 29% of respondents from sub-Saharan Africa said they had such a policy, and no parliaments in the Pacific reported having this kind of policy in place.

Figure 32. Digital content and open data publishing policies by region
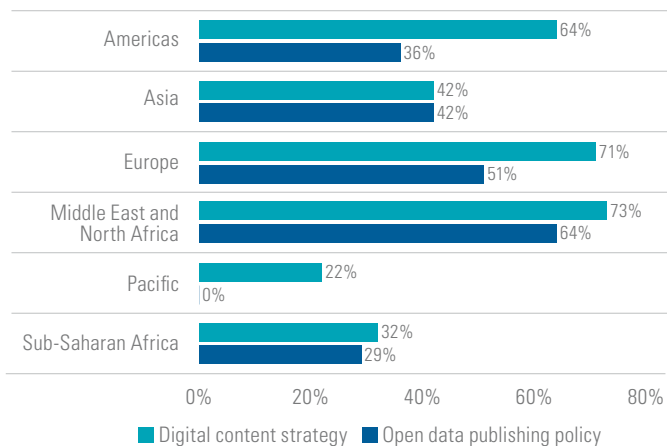
Setting the strategic priorities for digital communication is the responsibility of more than one role or department in 69% of parliaments. The responsibility lies with the ICT department for 47% of respondents, closely followed by the press office/public relations department (46%) and the communications department (40%). These figures paint a much more balanced picture than in previous reports, highlighting a significant shift away from digital content being the responsibility of the ICT department. In 2020, this was the case in 72% of parliaments, with the communications department and the press office responsible in only 33% and 32% of cases respectively.

Table 25. Strategic responsibility for digital content

Role or department	%
ICT department	47%
Press office/public relations department	46%
Communications department	40%
Library/research services	29%
Speaker	27%
Outreach/education department	6%
Knowledge management office	3%
External agency	2%
Other	28%

Digital media

As in previous reports, parliaments reported a strong focus on digital media platforms to publish information and engage with the public. Social media and websites emerge as the most widely used channels, with 98% and 97% of parliaments reporting that they used these. These high adoption rates underscore the modern parliament's reliance on internet-based channels to connect with audiences and share relevant content. Only two parliaments in the sample said they did not have a website and, for one of these two, the website was under development at the time of the survey.

Video content is a key aspect of a parliament's digital presence. Fifty-eight per cent of respondents said they made online video archives available, allowing viewers to consume content at their convenience. Broadcast TV is used by 54% of parliaments, with a lower share (40%) using web TV. These figures highlight the continued importance of traditional TV broadcasting in many countries, while also pointing to the growing significance of web-based video content.

Live-streaming of parliamentary proceedings through third-party platforms also plays a major role in many parliaments' digital media strategies, with 79% of those surveyed reporting this practice. By using third-party services, parliaments can reach an established user base and benefit from the built-in features and promotion capabilities offered by these external platforms.

Broadcast radio use has been declining throughout this report series as the emphasis shifts towards digital audio. The growing availability of the internet and increased bandwidth is also driving a trend towards visual media. Radio, however, remains important and is used by 29% of parliaments. Its use is significantly more prevalent in the Americas, where 64% of parliaments use this channel. This falls to 36% in the Middle East and North Africa and in sub-Saharan Africa, with the lowest usage rates reported by parliaments in Asia (25%), the Pacific (22%) and Europe (12%).

The use of instant messaging (IM) apps rose significantly between 2016 and 2020, from 20% to 34%. This trend appears to have halted, however, with only 30% of parliaments reporting using IM apps in 2024. This reversal in adoption rates could be attributed to the nature of parliaments' content or to the preferences of their audiences, who prefer to consume such content through other media.

Figure 33. Digital media for communicating with the public
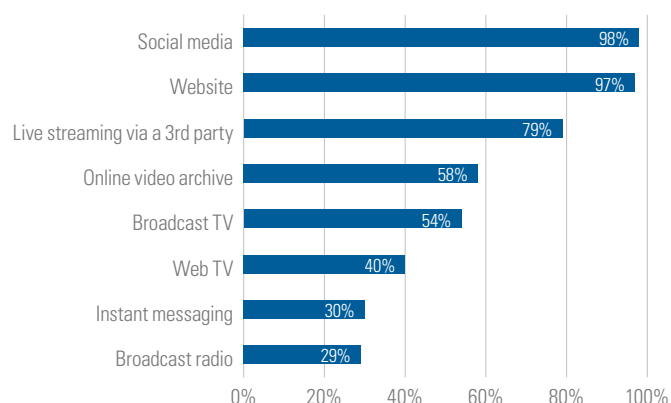
Website content

The survey asked parliaments to describe what content was available on their websites. The data reveals a wide range of content, with high percentages for most of the categories listed. On average, websites offered 12 of the 15 content areas listed in Table 26, with the highest reported shares for the following types: a list of MPs (99%), information about the functions, composition and activities of parliament (97%), and details about parliamentary leadership (96%). These categories all rated highly in 2020, showing that they remain consistently important. Other frequently available types of content include information about the history and role of parliament (95%), parliamentary committees, commissions and other non-plenary bodies (94%), and details about visiting parliament (93%).

There have been some slight changes in these figures since 2020: the shares of parliamentary websites offering content about the history and role of parliament, and information about non-plenary bodies, have fallen by 3 and 4 percentage points respectively, while the share providing information about visiting parliament has increased by 9 percentage points.

In terms of parliamentary processes, the share of websites providing an explanation of the legislative process has remained relatively stable at 78% (versus 79% in 2020), while the figure for information about the budget and public financing processes has risen from 51% in 2020 to 56% in 2024. There has also been a slight increase in the percentage of websites offering charts or diagrams showing how parliamentary business is conducted (from 55% in 2020 to 57% in 2024).

The availability of content related to the administration of parliament has increased slightly from 83% in 2020 to 85% in 2024. However, there have been decreases in other areas. For instance, the share of parliamentary websites providing the full text of standing orders, rules of procedure or similar rule-setting documents has fallen slightly from 88% in 2020 to 86% in 2024. Likewise, the percentage of websites explaining parliamentary terms, procedures and routine order of business is 85% in 2024, down from 86% in 2020. The share of websites providing contact information for questions about parliament has dropped from 88% in 2020 to 82% in 2024, and the percentage featuring contact information for questions about the website has decreased from 84% to 79% over the same period.

Table 26. Website content areas

Content area	2024	2020
Visiting parliament	93%	84%
History and role of parliament	95%	98%
Functions, composition and activities of parliament	97%	98%
Parliamentary leadership	96%	95%
Parliamentary committees, commissions and other non-plenary bodies	94%	98%
List of MPs	99%	99%
Explanation of parliamentary terms, procedures and routine order of business	85%	86%
Full text of standing orders, rules of procedure or similar rule-setting documents	86%	88%
Chart or diagram showing how the business of parliament is conducted	57%	55%
Explanation of the legislative process	78%	79%
Explanation of the budget and public financing processes	56%	51%
Administration of parliament	85%	83%
About the website (who owns it, who manages it, update policy, etc.)	66%	67%
Whom to contact for questions about the operation of the website	79%	84%
Whom to contact for questions about parliament	82%	88%

Publishing parliamentary business

There is a wide range of documentation published online relating to the work of parliament. Overall, the most commonly published information among respondents is the schedule of parliamentary business (97%), followed by the activities of committees, commissions and other non-plenary bodies (88%), audio or video from plenary meetings (85%), and the text of all enacted legislation (79%).

Parliaments in high-income countries consistently publish more information across all categories than those in countries at other income levels. Parliaments in lower-middle- and low-income countries lag behind, particularly when it comes to publishing the text and status of draft legislation (48% and 25% respectively, versus 92% in high-income parliaments), and audio or video from committee meetings (28% and 25% respectively, versus 73% in high-income parliaments).

Turning to regional differences, parliaments in Europe and the Americas generally publish more information online than those in other regions. Parliaments in the Americas stand out when it comes to publishing the activities of committees, commissions and other non-plenary bodies (100%), as well as audio or video from plenary meetings (100%). The Middle East and North Africa region has the lowest percentage of parliaments publishing audio or video from committee meetings (27%), while sub-Saharan Africa has the lowest percentage of parliaments publishing the text and status of draft legislation (43%).

Larger parliaments tend to publish more information online than smaller ones. The most notable difference is in the publication of the text and status of draft legislation, where 83% of large parliaments publish this information compared to 65% of small parliaments. However, the size of parliament does not seem to significantly affect the publication of the schedule of parliamentary business, with all sizes reporting high percentages (ranging from 85% to 100%).
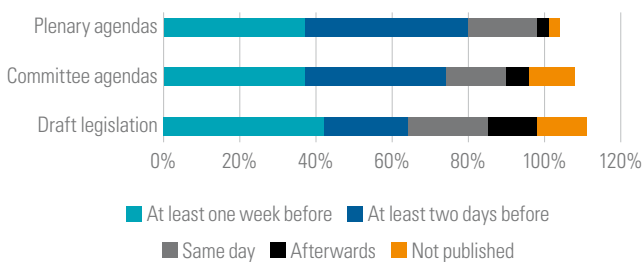
In summary, parliaments in high-income countries, parliaments in Europe and the Americas, and larger parliaments generally publish more parliamentary information online. Those in lower-income countries and in certain regions, such as sub-Saharan Africa and the Middle East and North Africa, are far less likely to publish draft legislation, as well as audio or video from committee meetings.

Table 27. Publishing parliamentary business

	%
Schedule of parliamentary business	97%
Text and status of draft legislation	75%
Text of all enacted legislation	79%
Parliamentary questions and government responses	74%
Activities of committees, commissions and other non-plenary bodies	88%
Audio or video from plenary meetings	85%
Audio or video from committee meetings	58%

Most parliaments publish their important documentation ahead of time. Eighty per cent publish plenary agendas at least two days in advance and 37% at least a week in advance. A further 18% publish them on the day of the sitting and only 3% do so afterwards. These statistics largely hold true for other parliamentary documents: committee agendas are published at least two days in advance in 74% of cases and on the day in 16% of cases. In 13% of cases, parliaments publish draft legislation after introducing it, and in another 13% of cases, draft legislation is not published at all. However, most respondents (64%) reported publishing draft legislation at least two days in advance, and 42% at least a week in advance.

Figure 34. Publication of parliamentary documentation before a session

The survey asked parliaments about delays in publishing key documents online for public consumption versus releasing the same documents internally (for MPs and staff). Just over half of respondents (51%) said they released the text of draft legislation publicly at the same time as publishing it internally, and a further 23% reported a time delay between publication for internal audiences and for the general public. Three quarters of parliaments (73%) reported publishing plenary schedules as soon as they were available and 57% said they adopted this approach for committee schedules.

In 2024, the share of parliaments reporting publishing their plenary proceedings within one day of the session was 72%, a slight increase from 2020 and from 2016, when the corresponding figures were 67% and 68% respectively. Forty-seven per cent said they published plenary proceedings in at least draft format on the day, and 51% reported publishing their plenary voting record on the day. It is notable that one

quarter of parliaments (25%) do not publish their voting record online. An even larger share (43%) do not publish committee voting records, although 55% publish committee proceedings within a day of the meeting.

Figure 35. Publication of parliamentary documentation after a session

Accessibility of content

The IPU's *Guidelines for Parliamentary Websites*[14] make recommendations about the use of multiple languages within the parliamentary web estate. They stress the importance, for democratic inclusion, of publishing content in all the languages that are in use. In the 2024 survey, 57% of parliaments reported publishing digital content in more than one language.

Figure 36. Content published in more than one language
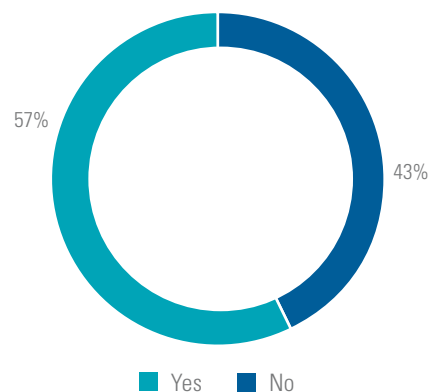
There is considerable variation in how parliaments address the needs of users with disabilities or special needs. Many follow formal standards that recommend how web content should be delivered. Beyond this, parliaments also comply with legal requirements that mandate them to publish content in accessible ways. Overall, in the survey for this report, 72% of parliaments reported making content available in a format

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14   IPU, *Guidelines for Parliamentary Websites* (Geneva: IPU, 2009): www.ipu.org/resources/publications/reference/2016-07/guidelines-parliamentary-websites-new-edition.

that was accessible for people living with disabilities, such as by ensuring compliance with screen reading software, publishing in an "easy read" format, or adding sign-language interpretation and captioning to videos.

Figure 37. Content made accessible for people living with disabilities

28%

72%

■ Yes ■ No
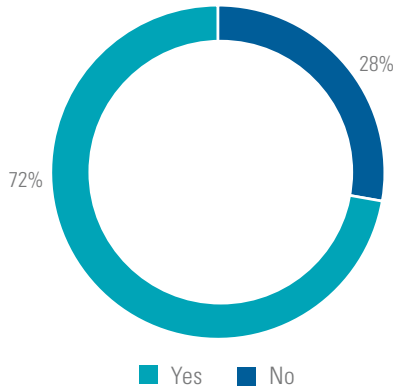
Open data

Open data publishing was first reported in the 2016 edition of this report series. At that time, PDF-format documents were the primary method by which parliamentary documents and data were made available to the public. This remains true in 2024, with 87% of parliaments providing data in this format. However, PDF-format documents are often not machine-readable and cannot necessarily be considered "open data" in the strictest sense. Parliaments publishing data in this way are strongly encouraged to investigate the use of more appropriate and genuinely open, machine-readable formats for publishing their data.

The 2020 report noted only modest changes since 2016, suggesting that the use of parliamentary open data had largely plateaued. Despite ongoing interest in parliamentary open data from civil society organizations and movements such as the Open Government Partnership (OGP), this remains true in 2024. This levelling-off could be attributed to several factors, including a view that sufficient data is already being published, a lack of understanding of what constitutes useful and usable data, or a need to invest in new technologies and platforms to allow more open data to be produced cost-effectively.

There has also been little change in the use of spreadsheets to publish data. The only area where there has been a notable increase since 2016 has been in the share of parliaments providing access to data via an API, which has risen from 19% to 29%. This pattern suggests that growth in open data is likely to be organic, as parliaments upgrade their underlying technology platforms rather than proactively seek out opportunities.

Following on from PDFs, parliaments are most likely to provide searchable text (58%). Other common formats include downloadable spreadsheets (39%) and downloadable XML files (37%). A further 26% of respondents said they were planning or considering providing downloadable XML files and APIs, while 16% of parliaments reported that they were planning or considering offering searchable text.

Previous reports have consistently highlighted disparities in open data publishing according to country income level. This trend has continued in 2024. Parliaments in high-income countries lead on the provision of searchable text (65%), downloadable spreadsheets (44%) and downloadable XML files (54%), while those in upper-middle-income countries are most likely to provide APIs (43%). Again, parliaments in lower-middle-income and low-income countries lag behind in most categories, with no parliaments in low-income countries reporting providing downloadable spreadsheets or XML files.

Parliaments in Europe were the most likely to report offering data in downloadable XML files (63%), while the highest percentage offering APIs was recorded in the Pacific region (78%). The highest percentages of respondents saying they provided searchable text (83%) and PDFs (92%) were in Asia, while the lowest shares of parliaments offering APIs (0%) and searchable text (27%) were recorded in the Middle East and North Africa. Large parliaments were more likely to report providing data via searchable text (74%), PDF (91%) and downloadable XML files (48%).

When parliaments publish open data, the vast majority (92%) do so via their own website or data portal. One quarter of respondents (24%) said they made data available upon request, and 19% through a government or national open data portal, but only 1% via parliamentary monitoring organizations (PMOs) or other external organizations.

Figure 38. Where open data is published

Parliament's website or data portal	92%
Available on request	24%
Government (or national) open data portal	19%
External organization (e.g. PMO)	1%

0%   20%   40%   60%   80%   100%
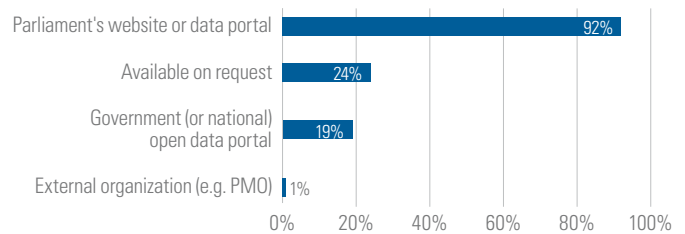
Looking at this data by country income level, parliaments in high-income countries were more likely to report publishing via their own website (88%), while the highest share of parliaments saying they made data available on request was recorded among those in low-income countries (50%). Parliaments in upper-middle-income (27%) and low-income countries were most likely to report releasing data via a government or national portal (25%).

In terms of regional differences, the Americas boast the highest rate of parliaments publishing on their own websites (93%) and through government portals (29%). This region is the only one where parliaments use external organizations (7%). The Pacific region has the lowest own-website publishing rate (67%) but ranks highest in terms of making data available on request (44%).

Future trends for digital content

As parliaments embrace digital transformation over the next two years, the most prominent themes emerging from the planned improvements relating to digital content and publishing are the integration of AI, the continued development of parliamentary websites (including the inclusion of mobile-friendly content), and the production and publishing of open data.

Many parliaments recognize the potential of AI to assist with publishing and with engaging with the public. AI technologies, such as real-time transcription, sentiment analysis, natural language processing and automated document classification, can potentially increase efficiency, accessibility and participation.

When it comes to website redevelopment, the focus is on providing a more user-friendly experience. Making websites easier to access and navigate from a range of devices improves transparency. This contributes to parliamentary outreach and engagement, making it easier for citizens to access and understand parliamentary information, and fostering greater engagement and trust in the democratic process.

Open data initiatives will continue to be important to parliaments. Some respondents said they planned to adopt open data policies and create dedicated portals to share data sets with the public. By publishing parliamentary data in accessible and reusable formats, parliaments support better analysis and understanding of legislative activities, promoting transparency and accountability.

Accessibility is another critical theme, as parliaments recognize that digital content must be accessible to all, including those with disabilities. In developing countries, the expansion of digital infrastructure is a top priority. Some parliaments in these countries plan to invest in improving internet access and speed both internally and for the public, laying the foundation for greater digital inclusion and participation. Parliaments are also looking to improve and modernize their e-Parliament systems. As the platforms on which digital content is created and published, such systems play a crucial role in modernizing parliamentary operations and improving outreach.

As the use of digital technologies grows, cybersecurity remains a critical concern. Some parliaments plan to invest in advanced cybersecurity measures, such as AI-driven breach protection and regular vulnerability assessments, in order to safeguard sensitive data and maintain public trust.

Focus areas for future improvements include the following:

- Accessibility
- AI integration
- Collaboration with external partners
- Cybersecurity enhancements
- Development of mobile applications
- e-Parliament systems
- Expansion of digital infrastructure
- Open data initiatives
- Video content
- Website redesign and modernization

Public engagement

Public engagement helps parliaments to be accountable, transparent, and responsive to the needs and concerns of the citizens they serve. By actively involving the public in the legislative process, parliaments can tap into a wider pool of knowledge and expertise, and bring more diverse perspectives on board. This leads to more informed decision-making that better reflects the interests of the wider community.

Table 28. Digital Maturity Index: top 15 ranking of parliaments in public engagement

Country	Digital Maturity Index	Digital governance, strategy & management	Infrastructure	Parliamentary systems	Supporting users in parliament	Digital content & publishing	Public engagement
Austria	9	7	9	6	10	8	10
Brazil – Federal Senate	10	8	9	10	10	9	10
Burundi – Senate	7	4	6	7	3	6	10
France – Senate	9	5	8	10	6	8	10
Malaysia	4	4	4	3	4	2	10
Paraguay - Chamber of Deputies	10	9	5	8	3	9	10
Paraguay - Senate	9	6	7	10	7	7	10
Ukraine	8	9	6	6	4	8	10
Bahrain	9	8	6	10	7	8	9
Brazil – Chamber of Deputies	10	9	7	10	4	10	9
Finland	10	6	10	9	7	10	9
Ireland	10	9	10	6	9	9	9
Malawi	5	4	5	3	2	4	9
Montenegro	7	2	5	5	2	10	9
Slovakia	10	10	10	9	8	10	9

Effective public engagement can help to build trust and confidence in the democratic process, as citizens feel that their voices are being heard and that they have a stake in shaping the future. This can lead to increased civic participation and a more resilient democracy. Regrettably, in the survey for this report, only a quarter of parliaments (26%) reported that improving the legitimacy of the legislative process was a priority, and only 25% said they saw including citizens in the decision-making process as important. The top three priorities for engaging with the public were as follows:

- Explaining what parliament does (61%)
- Informing citizens (57%)
- Engaging citizens (48%)

Parliaments were asked about their strategic approach to public participation. Only 35% of respondents said they had a formal strategy for online public participation, while 44% reported having digital education and outreach resources to support engagement. This suggests that, while some parliaments recognize the importance of engaging the public online, many have yet to develop a comprehensive approach. For example, parliaments have rarely, to date, developed a public engagement strategy that effectively combines online and in-person activities, and that considers parliament's ability to engage with all sectors of society, including women and men, young and old people, rural and urban dwellers, people living with disabilities, and members of other relevant groups.

The lack of a formal strategy in many parliaments suggests that there might be resource constraints, limited internal expertise, or limited recognition of the importance of online engagement. There are also external barriers to online public participation, which are discussed later.

Half of all parliaments responding to the survey (51%) said they used digital communication tools specifically to communicate with young people. A further 30% reported that they were planning or considering this.

Figure 39. Use of digital tools to communicate with young people

- Planning or considering
- Yes
- No
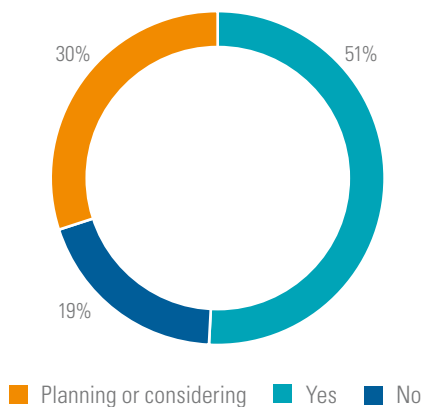
The higher prevalence of digital education and outreach resources (44%) versus formal strategies (35%) suggests that parliaments can prioritize public outreach and engagement without seeing the need to put a comprehensive strategy in place.

The survey data shows some variations by country income level, with parliaments in low-income countries being most likely to have a formal strategy for online public participation (50%). However, this was only the case for 12% of parliaments in lower-middle-income countries, which significantly skews the average downward. In terms of digital education and outreach resources, half of parliaments in high-income countries (50%) reported having these, compared with only 24% of those in lower-middle-income countries.

Parliaments in the Middle East and North Africa region were more likely to report having a formal strategy for online public participation (45%), followed by those in Europe (37%), the Americas (36%), Asia (33%), sub-Saharan Africa (29%) and the Pacific region (22%). The Pacific region has the highest percentage of parliaments reporting having digital education

and outreach resources (56%), followed by the Americas (50%), Europe (46%), the Middle East and North Africa (36%), Asia (33%) and sub-Saharan Africa (32%). Parliament size does not influence the adoption of formal strategies, although larger parliaments appear to have more resources to invest in education and outreach.

Responsibility for defining the objectives for online public engagement rests with a broad range of parliamentary staff and members. In two thirds of parliaments (66%), these decisions rest with more than one person or group. While the secretary general is the role most likely to be involved in defining strategic objectives (in 55% of cases), this person is solely responsible in only 10% of cases.

Figure 40. Responsibility for defining objectives for online public participation
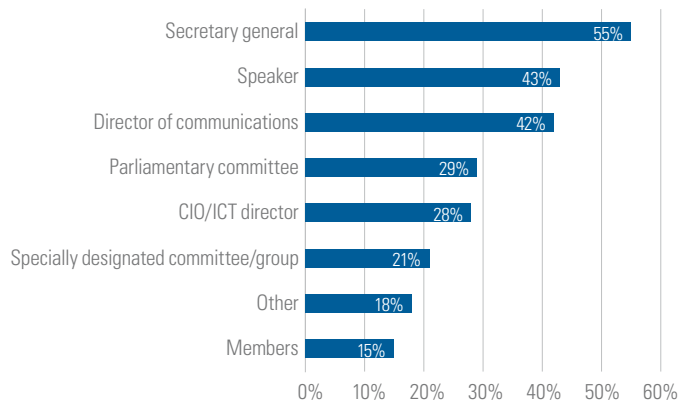
When planning public participation, it is important to understand not only what parliament wants to achieve but also how effective current methods are at achieving those targets. While 36% of parliaments said they were planning or considering either formal or informal methods of assessing the impact of their public engagement, only 21% reported actually doing this.

Resourcing public participation

The survey reveals insights into the specialist staff employed by parliaments to manage and promote public access and engagement.

Overall, 64% of parliaments said they had specialist staff for outreach and education, 54% for public engagement and 32% for helping the public make use of open data. Parliaments in high-income countries lead in open data utilization (42%), while those in lower-middle-income countries lag significantly behind (12%). Outreach and education are prioritized by parliaments in low-income countries (75%), whereas public engagement has relatively greater importance in those in upper-middle-income countries (63%).

Regionally, the Americas stand out, with 86% of respondents from this region reporting having specialist staff for outreach and education, and 79% for public engagement. Europe leads in open data utilization (44%), while sub-Saharan Africa and the Pacific region trail behind (11% and 0% respectively). Asia has the lowest percentage of parliaments with specialist staff for outreach and education (25%), but 67% of parliaments in this region have staff who focus on public engagement.

Regarding parliament size, large parliaments are more likely to have staff involved in open data utilization (52%), while small and medium-sized parliaments more often prioritize outreach and education (71% and 55% respectively). Public engagement is not greatly affected by the size of parliament, ranging from 52% to 57% across size categories.

While outreach and education are generally well supported, there is room for improvement in open data utilization, particularly among parliaments in lower-income countries and in certain regions.

Table 29. Resources for public participation

|	Outreach and education	Public engagement	Open data utilization
All	64%	54%	32%
Country income level			
High-income	69%	48%	42%
Upper-middle-income	63%	63%	33%
Lower-middle-income	52%	60%	12%
Low-income	75%	38%	25%
Region			
Americas	86%	79%	50%
Asia	25%	67%	25%
Europe	63%	44%	44%
Middle East and North Africa	55%	45%	55%
Pacific	78%	56%	0%
Sub-Saharan Africa	71%	54%	11%
Size of parliament			
Small	71%	52%	25%
Medium	55%	55%	30%
Large	70%	57%	52%

Many parliaments work with PMOs and other civil society organizations to improve public access to parliamentary activities and data. These organizations can be active and effective partners for parliaments, reaching audiences that parliament cannot and adding value to the democratic process in unique ways. The *World e-Parliament Report 2016* recommended embracing this way of working, and it is good to see that 60% of parliaments now have a relationship with such organizations, with 37% working directly with them.

Barriers to effective participation

Parliaments were asked to identify barriers to public engagement online. Eighty-one per cent of respondents identified at least one such barrier. The most common barriers across all parliaments were citizens lacking in skills and training to use the tools that parliament provides (42%), and a lack of access to the internet (41%). Ten per cent of parliaments said they were concerned that what they heard through online engagement was unrepresentative of the wider public, and the same percentage reported feeling unable to trust the authenticity of the communications they received. Parliaments

also cited a lack of financial resources, a lack of staff trained in participation methods, and the challenge of having to engage in multiple languages.

Figure 41. Barriers to online participation
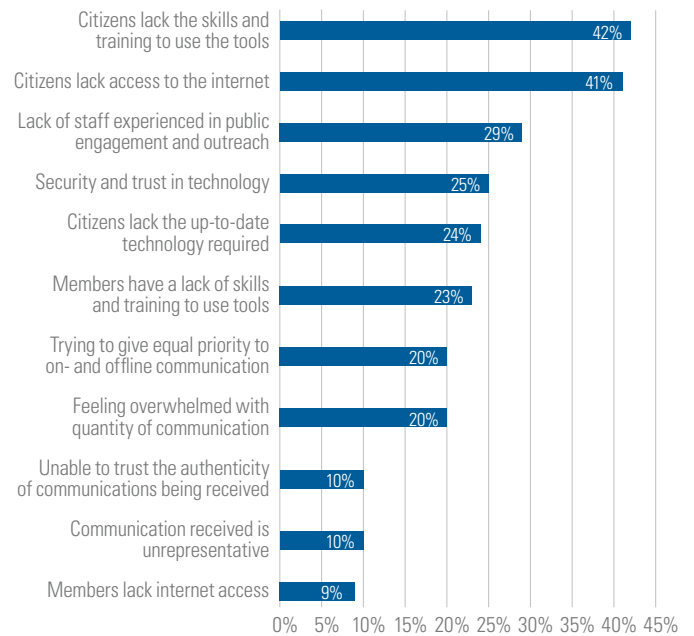
Throughout this report, the data highlights significant differences between well-resourced parliaments and those from developing countries. Nowhere is this truer than in public participation, where the responses to the survey highlight some stark and significant differences. For instance, 75% of parliaments in low-income countries reported a lack of access to the internet for citizens as a barrier to public participation, yet only 6% of those in high-income countries said they saw this as a challenge. Likewise, while internet access was only cited as a barrier by 2% of European parliaments, 71% of parliaments in sub-Saharan Africa and 58% in Asia reported it as being a challenge. Underscoring how both infrastructure and equipment impact effective digital participation, 63% of parliaments in low-income countries said that citizens lacked up-to-date technology, while the corresponding share was just 6% among high-income parliaments. No parliaments in the Americas, Asia or Europe reported members' lack of internet access as an issue, whereas one quarter of respondents (25%) in sub-Saharan Africa did so. This lack of digital access is also reflected in terms of digital literacy: while 20% of European parliaments identified a lack of digital skills among citizens as a barrier, parliaments in sub-Saharan Africa, the Pacific region and Asia were more likely to say they saw this as a challenge (50%, 44% and 42% respectively).

This picture highlights the fact that using digital tools to promote greater public engagement with parliament is easier when a nation is digitally connected and has high levels of digital literacy. Parliaments in developing countries, as well as in other countries facing connectivity challenges, poor infrastructure and lower levels of digital literacy, will find it harder to engage the public online. It is in situations like this that parliaments could be encouraged to work with PMOs and other civil society organizations to help magnify their outreach and engagement efforts.

Perhaps somewhat ironically, parliaments in high-income countries reported that they were more likely to feel overwhelmed by the quantity of communication they received, and to say that they saw this as a barrier to engagement (25% and 24% of European parliaments respectively). Conversely, no parliaments in low-income countries cited this as a pressing issue. This finding should serve as a warning to those parliaments that wish to expand their public participation, underscoring the fact that success in this area demands additional skills and resources.

One quarter of parliaments (25%) said they saw security and trust in technology as a barrier, with this being an issue for a higher share of parliaments in low- and lower-middle-income countries (38% and 36% respectively) than in high-income countries (10%). This was more likely to be identified as a challenge by parliaments in sub-Saharan Africa (32%), but far less likely by those in the Middle East and North Africa (18%), Europe (15%) and the Americas (7%). Trusting the authenticity of digital communications was not cited as an issue by European parliaments, with only 2% reporting this as a problem. However, 22% of parliaments in the Americas and the Pacific region identified it as a challenge.

Table 30. Barriers to online participation by country income level

	High-income	Upper-middle-income	Lower-middle-income	Low-income
Citizens lack internet access	6%	50%	56%	75%
Citizens lack the skills and training to use the tools	23%	37%	52%	38%
Citizens lack the up-to-date technology required	6%	17%	36%	63%
Communication received is unrepresentative	8%	10%	0%	25%
Feeling overwhelmed with quantity of communication	25%	10%	12%	0%
Lack of staff experienced in public engagement and outreach	21%	20%	24%	50%
Members lack access to the internet	0%	7%	12%	38%
Members have a lack of skills and training to use tools	6%	20%	32%	50%
Security and trust in technology	10%	20%	36%	38%
Trying to give equal priority to on- and offline communication	23%	17%	4%	13%
Unable to trust the authenticity of communications	8%	3%	12%	13%

Use of digital tools in committees

More than 9 out of 10 parliaments (91%) said they used a website to communicate with citizens regarding committees. This represents a notable and consistent rise since 2016, when the corresponding figure was 67%. There has been a similarly dramatic increase in the use of social media, which has risen from 35% in 2018 to 45% in 2020, and to 70% in this report.

Figure 42. Use of websites and social media for committees
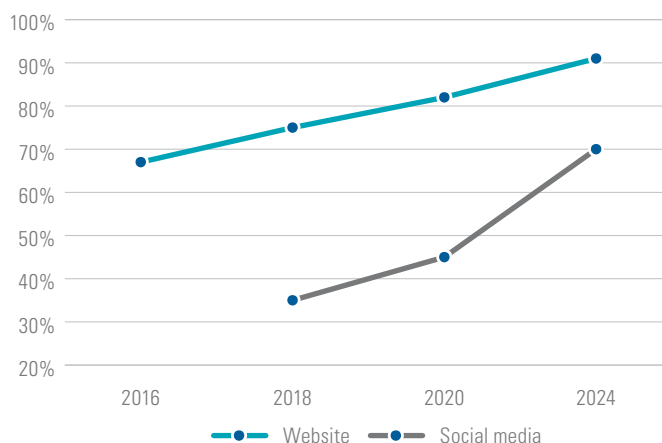
The most common purposes reported by parliaments for using digital tools for committees were to communicate information about the work, scope and process of a committee (82%), and to publish the outcomes of committee work (68%). The second most common digital media for committees is social media, which is used by 70% of respondents, followed by email (65%). Only 11% of parliaments said they used mobile apps to communicate information about committees.

Websites, closely followed by social media, are most commonly used to publish information. A smaller share of parliaments use them to interact and engage directly with the public (37% in both cases). Almost half of parliaments (49%) reported using websites to seek submissions and comments, while 42% said they used social media for this purpose, with 29% using email but only 3% using an app.

Table 31. Use of digital tools by committees

	Website	Email	Social media	App
Used for one or more purpose	91%	65%	70%	11%
Communicating information about their work, scope and process	82%	30%	64%	11%
Communicating the committee's position on issues	55%	22%	39%	5%
Seeking submissions, comments and opinions from the public	49%	29%	42%	3%
Directly involving members of the public	37%	26%	37%	0%

	Website	Email	Social media	App
Responding to submissions and comments received	26%	51%	21%	1%
Publishing the findings or results of the committee	68%	18%	40%	5%

Analysing submissions

Parliaments appear slow to adopt digital tools for analysing public submissions, with manual analysis methods remaining prevalent.

Many parliaments explicitly stated that they did not currently use any specific tools or methods – manual or digital – to analyse public submissions. Where parliaments reported analysing public submissions, most said they used manual methods carried out by specialist staff, usually on behalf of committees. The expertise of these staff is used to extract key insights, identify patterns, and make sense of qualitative data from public submissions. In addition, some parliaments stated that they consulted with subject-matter experts to better understand the issues raised and ensure thorough analysis.

Several parliaments mentioned that, while they did not currently use specific digital tools, they were evaluating various possibilities and options for the future. The most commonly mentioned of these were tools for online citizen engagement and participation. Only 2% of parliaments said they used AI for analysing submissions from citizens, although 27% stated that they had plans to explore this in the future. Given the potential power of AI to analyse large volumes of qualitative data, this is an area where significant growth can be expected in the years ahead.

Where parliaments reported using digital tools, these fell into two specific categories. First, some parliaments mentioned using qualitative and quantitative data analysis tools. Second, some respondents highlighted specific initiatives aimed at promoting citizen participation and online tools, with an analysis component.

Lessons learned from experience

Over the past two years, parliaments have successfully implemented digital tools, such as live-streaming, social media, and online forums, to reach a broader audience and enhance public participation. In doing so, they have provided easier access to legislative information such as bills, debates and decisions. Respondents identified that this had been important in building interest in parliamentary activities and that it had contributed to greater trust, with channels for providing timely feedback to the public cited as being particularly important.

In the survey for this report, parliaments also reported successful efforts to include diverse voices, especially from marginalized or underrepresented communities. Many said they felt that this had enriched the legislative process and made it more representative. Alongside this outreach work, programmes explaining the role and functioning of parliament have been effective in increasing public interest and participation.

Social media is valuable, but it can lead to polarized debates and the spread of misinformation. A careful and balanced approach is therefore required, along with proactive measures to combat the spread of false information and to promote legitimate sources such as parliamentary websites.

Several parliaments said that more digital literacy education would help the public to use digital tools effectively for engagement, and that outreach must be well targeted. Experience suggests that engaging the public on specific issues yields better outcomes than broad, generic content. Other notable themes identified by parliaments include the importance of simple, clear communication, the need for adequate resources and expertise, and the potential of innovative technologies such as AI to boost engagement. Parliaments also reported that they had learned to adapt to the challenges posed by the COVID-19 pandemic, leveraging digital platforms to continue their work and engage with the public remotely.

Inter-parliamentary collaboration

Parliaments are unique institutions. When it comes to technology, they can learn much from other parts of the public sector, as well as from the business community. However, they can learn best from each other. Nowhere was this demonstrated more clearly than during the COVID-19 pandemic, when parliaments that worked together and shared ideas were able to move swiftly to new, virtual ways of working.

Networks

The IPU's CIP was launched in December 2018. It operates as a distributed model of regional and thematic hubs hosted by parliaments or, in the case of the Public Engagement Hub, by other external partners. Coordination and research responsibilities rest with the CIP secretariat, which is part of the IPU. Almost half of parliaments (45%) have now participated in a CIP hub, project or event, and a further 32% would like to do so, representing a 67% increase in participation since 2020. As of early 2024, only 13% of parliaments were not aware of the CIP.

Table 32. Involvement with the Centre for Innovation in Parliament

		2024	2020
Aware of CIP	Participated in a CIP hub, project or event	45%	27%
	Would like to participate in the future	32%	43%
	Not planning on participating	10%	13%
Not aware		13%	17%

There are a number of different organizations and networks that exist to support parliaments, including the CPA for members of the Commonwealth, the ECPRD for European parliaments, and the IFLA, which focuses on parliamentary libraries and research. More thematic networks include the parliamentary stream within the Internet Governance Forum (IGF), and the OGP, with its focus on openness and transparency.

Table 33. Participation in inter-parliamentary networks

Network	%
Commonwealth Parliamentary Association (CPA)	22%
European Centre for Parliamentary Research and Documentation (ECPRD)	49%
International Federation of Library Associations and Institutions (IFLA)	45%
Internet Governance Forum (IGF)	6%
Open Government Partnership (OGP)	14%
ParlAmericas	13%
Other	19%

Providing support

Seventy per cent of parliaments said they provided or were willing to provide support to others, and 46% reported currently doing so in at least one functional area. The areas in which respondents most commonly reported providing active support were legislative process and procedures (37%), staff development and training (37%), and library and research services (32%). In addition, the survey revealed substantial willingness to provide future help in areas such as document management systems (40%), document standards (36%), and citizen outreach and engagement (32%).

In all except five functional areas, more parliaments said they were willing to provide support than currently do so. This was particularly true in the following areas: document standards (36% willing to provide support versus 9% currently doing so), document management systems (40% versus 17%) and data management (32% versus 12%). Only a handful of parliaments reported assisting others in the newer and emerging fields of cloud and AI (9% and 7% respectively). A further 23% stated a willingness to provide support to other parliaments in both these areas. This suggests there are significant unmet opportunities to increase inter-parliamentary support.

Where parliaments provide support to others, the average number of functional areas covered is six; this rises to an average of eight functional areas in which parliaments are willing to provide support.
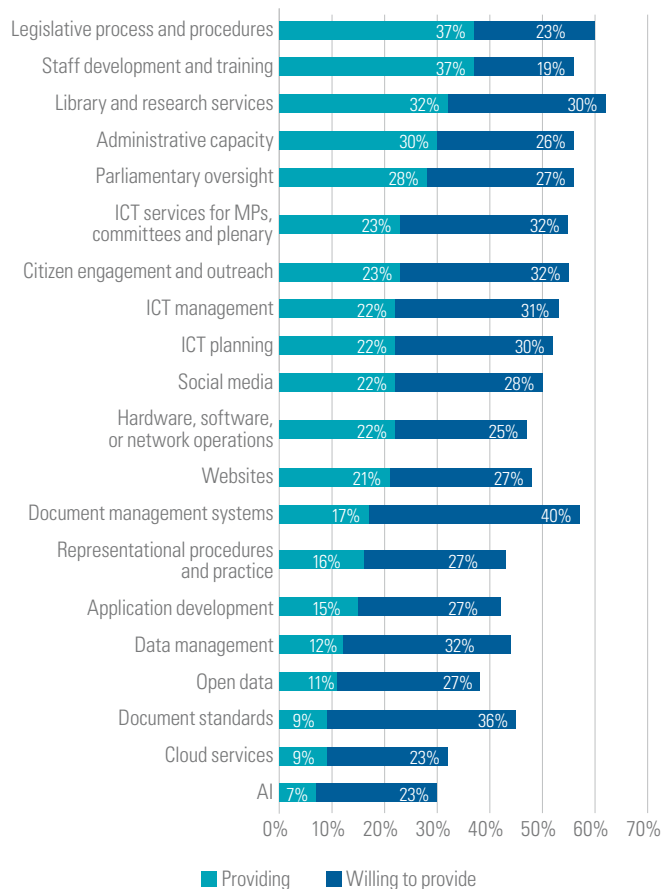
Unsurprisingly, country income level is a major determinant of a parliament's ability to provide support. Parliaments in high-income countries were most likely to report actively providing support, especially in areas such as library and research services (35%), legislative procedures (33%), administrative capacity (29%), and citizen engagement and outreach (23%). Conversely, no parliaments in low-income countries reported currently providing support for citizen engagement and outreach, although an impressive 50% said they would be willing to do so. Across all areas, parliaments in lower-middle-income and low-income countries were less likely to report providing support. However, they expressed a strong willingness to do so in the future across most areas.

Parliaments in the Americas stand out for very high levels of willingness to provide support for citizen outreach (86% said they were providing or willing to provide such support), legislative procedures (64%) and parliamentary oversight (57%). At present, the share of parliaments in sub-Saharan Africa providing inter-parliamentary support is very low, although parliaments in this region reported a high degree of willingness to assist in the future, especially when it comes to document management systems (39%), ICT planning (39%) and data management (32%).

Again, it is perhaps not surprising that the larger parliaments are the most active in providing support. Although small parliaments have the lowest existing levels of support provision, they are often willing to assist others.

While overall activity levels vary, there is broad and strong interest among parliaments in sharing knowledge to help strengthen key functions, especially core capacities such as legislative procedures, administrative operations and digital tools. Larger parliaments and those in relatively higher-income countries are the most active providers of support, but many smaller parliaments and those in lower-income countries are eager to increase their levels of peer support in the future.

Figure 43. Provision of support to other parliaments

	Providing	Willing to provide
Legislative process and procedures	37%	23%
Staff development and training	37%	19%
Library and research services	32%	30%
Administrative capacity	30%	26%
Parliamentary oversight	28%	27%
ICT services for MPs, committees and plenary	23%	32%
Citizen engagement and outreach	23%	32%
ICT management	22%	31%
ICT planning	22%	30%
Social media	22%	28%
Hardware, software, or network operations	22%	25%
Websites	21%	27%
Document management systems	17%	40%
Representational procedures and practice	16%	27%
Application development	15%	27%
Data management	12%	32%
Open data	11%	27%
Document standards	9%	36%
Cloud services	9%	23%
AI	7%	23%

Receiving support

Whereas 46% of parliaments reported that they were providing support to others in at least one area, just 32% of respondents said they were receiving external support. An even smaller share (17%) reported receiving support from another parliament, although a larger percentage (27%) said they were being supported by other external organizations, including the IPU, the UN and the EU.

Figure 44. Parliaments receiving external support

	Other parliaments	Outside organisations
Legislative process and procedures	32%	20%
Staff development and training	32%	16%
Library and research services	27%	25%
Administrative capacity	25%	22%
Parliamentary oversight	24%	23%
ICT services for MPs, committees and plenary	20%	27%
Citizen engagement and outreach	20%	27%
ICT management	19%	26%
ICT planning	19%	25%
Social media	19%	24%
Hardware, software, or network operations	19%	21%
Websites	18%	23%
Document management systems	15%	34%
Representational procedures and practice	14%	23%
Application development	13%	23%
Data management	11%	27%
Open data	9%	23%
Document standards	7%	31%
Cloud services	7%	20%
AI	6%	20%

There is some correlation between the functional areas in which parliaments are offering or are willing to offer support, and the support being received by others. Parliamentary oversight, administrative capacity, library and research services, and staff development and training are the top-ranking areas for inter-parliamentary support. AI, cloud services, document standards and open data are the areas where support is least likely to come from other parliaments. However, document standards ranks second when it comes to support from other external organizations, just behind document management systems, and ahead of citizen engagement and outreach, and ICT services for members, committees and the plenary. Almost three times as many parliaments said they received support for AI, open data or cloud services from external organizations as those reporting receiving support in these areas from other parliaments. Conversely, support is more likely to come from other parliaments for more parliament-specific areas, such as staff development, and legislative process and procedures.

Parliaments in low-income and lower-middle-income countries are most likely to be receiving support. Parliaments in the Americas are most likely to receive inter-parliamentary support and support from other external organizations, followed by those in Europe. Parliaments in the Middle East and North Africa, Asia, and sub-Saharan Africa are least likely to receive support from other parliaments. Parliaments in the Pacific region, Asia and sub-Saharan Africa receive less support from external organizations in relation to their ICT needs.

Conclusion

The *World e-Parliament Report 2024* draws on data from 115 parliaments or chambers, spanning legislatures in 86 countries plus two supranational parliaments. It highlights a growing strategic focus on digital technologies, with 68% of respondents now implementing multi-year digital strategies. This shift is further evidenced by increased budgetary allocations for ICT and more active involvement of high-level leadership in digital governance.

The report introduces a new Digital Maturity Index, which provides valuable insights into the state of digital adoption across parliaments. While infrastructure and user support emerge as areas of strength, public engagement remains a challenge for many. Notably, the report uncovers a persistent digital divide, with country income level serving as the primary predictor of digital maturity. This finding underscores the need for targeted support and knowledge-sharing initiatives to bridge the gap between legislatures in high-income and lower-income countries.

Emerging technologies are gaining traction, with AI and cloud computing seeing significant uptake. However, this development brings new challenges, particularly in cybersecurity, which has become a priority for many parliaments. The report notes the near-ubiquitous adoption of social media as a tool for public engagement, even though formal strategies for online public participation often remain limited.

Inter-parliamentary collaboration emerges as a crucial factor in driving digital transformation. Increased participation in the IPU's Centre for Innovation in Parliament reflects a growing recognition of the value of knowledge-sharing and capacity-building across parliaments.

Based on these findings, the report recommends that parliaments focus on developing comprehensive digital strategies aligned with their overall objectives, ensuring strong leadership to drive transformation. Adequate resource allocation, both financial and human, is crucial to support modernization. As emerging technologies such as AI become more prevalent, parliaments need to establish robust governance frameworks, and regulation is essential to ensuring responsible and transparent use.

The report emphasizes the importance of capacity-building, recommending investment in training and skills development for members and staff, particularly in areas such as cybersecurity and data management. Public engagement should be prioritized, with formal strategies developed to leverage digital tools and involve more citizens in the legislative process.

Finally, this report strongly encourages strengthening inter-parliamentary collaboration and knowledge-sharing. By learning from each other and addressing common challenges collectively, parliaments can accelerate their digital transformation journey and better serve their constituents in the digital age.

Appendices

Appendix A – Sample and methodology

This report is based on the results of a survey that was distributed to, and promoted directly with, parliaments through the IPU's usual channels and through the CIP networks. Additional direct contact was made with senior ICT personnel in parliaments to encourage completion, and there was ongoing follow-up with parliaments to maximize the sample size. A separate response was sought from each parliamentary chamber.

The survey questionnaire was available both online and as a Microsoft Word document, and could be completed in English, French or Spanish. Data was collected between October 2023 and January 2024. Responses were received from 115 parliamentary chambers in total, spanning legislatures in 86 countries plus two supranational parliaments. Given that the global population of parliaments is small, the sample cannot be considered statistically significant. Rather, it is representative. The results cannot be extrapolated to speak for all parliaments. Instead, they speak solely for the parliaments and chambers that responded to this survey. Where qualitative data is presented in this report, it has been interrogated using a process of thematic analysis, whereby data is analysed to identify emergent patterns (themes) within it, which are organized to give meaning to the question.

The largest parliament or chamber participating in this research was the National People's Congress of China, with 2,977 members. The smallest was the Senate of Palau, with 13 members. The average number of members across all respondents was 199. Across the whole sample, 42% of respondents were classed as "small" parliaments (with fewer than 100 members), 38% as "medium-sized" (between 100 and 299 members) and 20% as "large" (300 or more members). Thirty-six per cent of responses were from parliaments or chambers in Europe, 24% from sub-Saharan Africa, 12% from the Americas, 11% from Asia, 9% from the Middle East and North Africa, and 8% from the Pacific region.

The data is biased somewhat in favour of parliaments or chambers in higher-income countries, with those from high-income and upper-middle-income countries representing 45% and 26% of respondents respectively. Conversely, just 22% and 7% of responses came from parliaments or chambers in lower-middle-income and low-income countries respectively. For reference, globally, 15% of countries are classified as low-income and 30% as high-income. While comparisons are made in this report with data sets from previous surveys, the parliaments participating in each survey can and do differ.

The Digital Maturity Index was compiled from a subset of the survey data. It is based on responses from 113 parliaments, as survey data for two respondents was incomplete. Using the first six sections of the survey, responses were rated and a score calculated. These scores were then added together to create a "raw" total score for each parliament. On this basis, a decile ranking was then allocated: the highest 10% of parliaments in the rankings were placed in decile 10 and the lowest 10% in decile 1. Similar decile rankings were calculated for each of the six topic areas. These are also shown in the report.

Figure 45. Parliaments participating in the survey

- Both chambers
- Unicameral
- Lower chamber
- Upper chamber
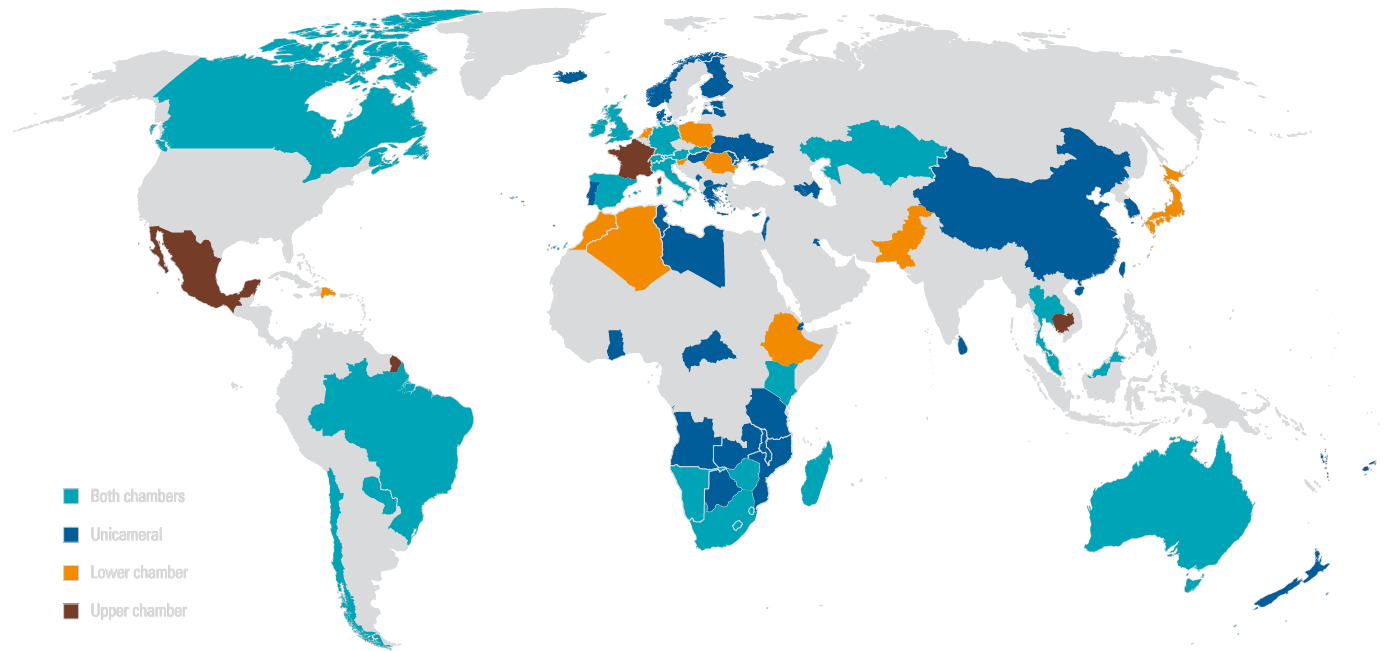
This report focuses on the technological aspects of digital transformation in parliaments. It does not apply a specific gender lens, since the data collected does not allow for an analysis of the differential contributions of men and women, or of the ways men and women may be impacted by the systems under consideration. As such, there is an implicit assumption that digital transformation affects all parliamentary members and staff equally, regardless of gender.

In other research, the IPU has explored the extremely important question of the use of social media by parliamentarians and the public. Social media is frequently a source of intimidation and harassment towards MPs, as well as of gender-based violence.

The authors of this report recognize that, as digital technology becomes increasingly strategic to parliaments, gender balance and gender-responsive digital initiatives are likely to become increasingly important aspects of inclusive governance.

Appendix B – Parliaments and chambers taking part in the research

Country	Parliament or chamber	Unicameral	Lower chamber	Upper chamber
AMERICAS				
Brazil	National Congress		●	●
Canada	Parliament		●	●
Chile	National Congress		●	●
Guyana	National Assembly	●		
Mexico	Senate			●
Paraguay	Congress		●	●
Suriname	National Assembly	●		
Trinidad and Tobago	Parliament		●	●
ASIA				
Bhutan	National Assembly		●	
Cambodia	Senate			●
China	National People's Congress	●		
Japan	House of Representatives		●	
Kazakhstan	Parliament		●	●
Malaysia	Parliament		●	●
Pakistan	National Assembly		●	
Republic of Korea	National Assembly	●		
Sri Lanka	Parliament	●		
Thailand	National Assembly		●	●
EUROPE				
Andorra	General Council	●		
Armenia	National Assembly	●		
Austria	Parliament		●	●
Azerbaijan	National Assembly	●		
Cyprus	House of Representatives	●		
Denmark	Parliament	●		
Estonia	The Estonian Parliament	●		
Finland	Parliament	●		
France	Senate			●
Germany	German Bundestag & Federal Council		●	●
Greece	Hellenic Parliament	●		

Country	Parliament or chamber	Unicameral	Lower chamber	Upper chamber
Hungary	National Assembly	●		
Iceland	Parliament	●		
Ireland	Parliament		●	●
Italy	Parliament		●	●
Latvia	Parliament	●		
Luxembourg	Chamber of Deputies	●		
Monaco	National Council	●		
Montenegro	Parliament	●		
Netherlands	House of Representatives		●	
North Macedonia	Assembly of the Republic	●		
Norway	Parliament	●		
Poland	Sejm		●	
Portugal	Assembly of the Republic	●		
Republic of Moldova	Parliament	●		
Romania	Parliament		●	
Slovakia	National Council	●		
Slovenia	National Assembly		●	
Spain	The Cortes		●	●
Switzerland	Federal Assembly		●	●
Ukraine	Parliament	●		
United Kingdom	UK Parliament		●	●
MIDDLE EAST AND NORTH AFRICA				
Algeria	National People's Assembly		●	
Bahrain	National Assembly		●	●
Djibouti	National Assembly	●		
Israel	Parliament	●		
Kuwait	National Assembly	●		
Lebanon	National Assembly	●		
Morocco	House of Representatives		●	
Tunisia	Assembly of People's Representatives		●	

Country	Parliament or chamber	Unicameral	Lower chamber	Upper chamber
PACIFIC				
Australia	Parliament		●	●
Fiji	Parliament	●		
Kiribati	House of Assembly	●		
New Zealand	House of Representatives	●		
Palau	National Congress		●	●
Tonga	Legislative Assembly	●		
Vanuatu	Parliament	●		
SUB-SAHARAN AFRICA				
Angola	National Assembly	●		
Botswana	National Assembly	●		
Burundi	Parliament		●	●
Central African Republic	National Assembly	●		
Eswatini	Parliament		●	●
Ethiopia	House of Peoples' Representatives		●	
Ghana	Parliament	●		
Kenya	Parliament		●	●
Lesotho	Parliament		●	●
Madagascar	Parliament		●	●
Malawi	National Assembly	●		
Mauritius	National Assembly	●		
Mozambique	Assembly of the Republic	●		
Namibia	Parliament		●	●
Seychelles	National Assembly	●		
South Africa	Parliament		●	●
Tanzania (United Republic of)	National Assembly	●		
Zambia	National Assembly	●		
Zimbabwe	Parliament		●	●
OTHER				
-	European Parliament	●		
-	Pan-African Parliament	●		